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Requirements During the Transport of
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
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PUBLIC COMMENT MEETING ON A PROPOSED POLICY TO
ENHANCE SECURITY
REQUIREMENTS DURING THE TRANSPORT OF RADIOACTIVE
MATERIAL

+ + + + +

WEDNESDAY,

JANUARY 23, 2008

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ROCKVILLE, MARYLAND

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The Public Comment Meeting was convened
in the Auditorium at the headquarters of the Nuclear
Regulatory Commission, Two White Flint North, 11545
Rockville Pike, at 9:00 a.m., Mr. Lance Rakovan,
Facilitator, presiding.

NRC STAFF PRESENT:

LANCE RAKOVAN, Facilitator

BOB CALDWELL

ADELAIDE GIANTELLI

SUSAN BAGLEY

GARY PURDY

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

1:36 P.M.

MR. RAKOVAN: Good afternoon. I'd like to welcome you all to NRC's public meeting. My name is Lance Rakovan. I am a communications assistant at the NRC and it's my pleasure to facilitate today's meeting. Of course, we are here to discuss enhancing security during the transport of radioactive materials in quantities of concern.

I wanted to just take a moment to let you know what to expect this afternoon, go over some ground rules and, of course, introduce the people who will be speaking today. Just to give you an idea of who will be our speakers, we first on the far position there, we have Bob Caldwell, who is the Chief of the Fuel Cycle and Transportation Security Branch, Adelaide Giantelli, who is a Team Leader, Transportation Security, Susan Bagley, Transportation Security Specialist and Gary Purdy, who is our Senior Health Physicist.

Just to go over a couple ground rules. We are taking a transcription of today's meeting. So in order to make sure that we get a clean transcript, I'm going to ask that everybody use a microphone if you want to make a comment. Essentially, what's going to

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1 happen is we're going to have Adelaide give a
2 background presentation and then we'll go ahead and
3 open up the floor to comments or questions. If you do
4 have a comment or a question, you can either approach
5 the mike, raise your hand. You know, somehow we'll
6 get the attention.

7 For those of you who are on the phone,
8 I'll make sure that I open things up so that you have
9 an opportunity to speak as well. When you do speak,
10 if you could let us know who you are and what group
11 you're with, that will make sure that once we get the
12 transcript we'll know who made a particular comment.
13 So especially if we want to follow up on something, or
14 just so we know who made a particular comment.

15 Also, let's try to keep side conversations
16 down to a minimum. That allows everybody to focus on
17 what's going on. And again, please, if you're going
18 to speak, make sure you use a microphone. For those
19 of you who are on the phone, again, I'm going to do
20 my best to make sure that everyone has a chance to
21 participate. The most important thing you can do to
22 help me out and make sure that the meeting goes
23 smoothly is to make sure that you have your phones
24 muted when you're not talking.

25 Again, once we go to the question and

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1 answer sessions, I'll make sure that you have an
2 opportunity to speak as well. If you want to make a
3 comment, please let us know who you are before you
4 make a comment or ask a question.

5 Just some simple straightforward meeting
6 stuff, in addition, of course, to asking them to mute
7 the phones, I ask everyone here to make sure that your
8 cell phones are off or silenced so that doesn't
9 disrupt the meeting. Everyone should have picked up a
10 copy of the slides and a public meeting feedback form
11 on their way in. If you didn't they're out on the
12 table. Hopefully, everyone on the phone has a chance
13 to bring up the slides. Either, I believe, they were
14 sent to some people or you can find them on our
15 websites.

16 For those of you who are here, if you
17 haven't figured it out, the restrooms are straight
18 across the hall. We will be taking a break, but of
19 course, if you need to take your own break, by all
20 means do so. And other than that, I will turn things
21 over to Bob Caldwell, for an introduction. Bob, if
22 you could come up here, please? I'm going to twist it
23 on you and make you come up here to the mike.

24 MR. CALDWELL: Thank you. First off,
25 welcome to NRC headquarters. We appreciate you all

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1 taking the time to come here and talk about this
2 pretty important subject, basically the transportation
3 of radiological materials in quantities of concern.

4 This is the third public meeting we've had
5 on this subject. The first two, the first one was in
6 Chicago last week, followed by one in Oakland. Prior
7 to 9/11, the NRC's regulations with regards to
8 transportation of these materials was basically based
9 on preventing inadvertent or accidental exposures.
10 And this basically provided for the security of the
11 materials of concern.

12 After 9/11, the NRC took a broader look at
13 how these materials could be used in malevolent acts.

14 We identified additional security measures and
15 provided those additional security measures to the
16 licensees via the security advisory and then we
17 provided the licensees with legally binding orders to
18 implement these security measures. The security
19 measures that we identified, and the security
20 advisories were not publicly available. The orders
21 were but the additional security measures were not.

22 Although these legally binding orders
23 could stay in effect ad infinitum, there's no --
24 there's not been any public participating in
25 developing these additional security measures and

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1 that's not the way the NRC likes to do business. So
2 what we've started here is this is the beginning
3 process of a rulemaking process in the public so that
4 we can upgrade the regulations as you read them in the
5 10 CFRs today to where we, as a nation, believe they
6 need to be. So we're very much interested in the
7 stakeholder, licensee and public input as well as
8 other federal agency's input on these regulations.

9 What we're going to do in this meeting is
10 basically provide a framework of where we think we
11 ought to go or basically a framework of things that
12 we've put in place at an unclassified public level and
13 use that as the framework for discussions. These are
14 not the de facto end results of where we want to be
15 but they are a framework so we can talk about it.

16 As we go through, we'll have seven areas
17 that we're looking at changing the regulations. One
18 thing that I do request during this meeting, the
19 biggest item is we're at the developing the technical
20 basis part of the process. That means we don't have a
21 specific spot where we have to end up. But what I
22 will have to do, what we will have to do afterwards is
23 develop the technical basis and then provide a draft
24 proposed rule to the Commission that provides enough
25 fidelity and enough context, both the pluses and the

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1 minuses, different options, so the Commission can make
2 an informed decision. Therefore, as you give us
3 comments, I request that you not only provide us your
4 conclusion, i.e., you should do this or you should do
5 this, but I would also request that you provide us
6 some sort of basis for that conclusion, what are the
7 positives, what does that provide you, what are the
8 negatives, what are other things we should consider?

9 It's very open. We have not made any --
10 we have not finalized anything on this rule making at
11 this time. So I request, please, as you give us your
12 comments, give us your conclusion but we'd also
13 appreciate the basis for how you made that conclusion.
14 With that, Lance?

15 MR. RAKOVAN: Thanks, Bob. Adelaide is
16 now going to give us a presentation involving some
17 background to this rule. For those of you who are on
18 the phone, I believe that her presentation starts with
19 slide number 6.

20 MS. GIANELLI: Good afternoon, everyone.
21 Thank you for taking the time to be here today. As
22 Lance said, I'm Adelaide Giantelli and I'm the Team
23 Leader for Transportation Security in the Division of
24 Security Policy here at NRC. We're here today to
25 discuss NRC's plans to increase security during

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1 transport of radioactive materials in quantities of
2 concern. Thank you, Lance.

3 I'm going to provide some background
4 information to help explain security requirements that
5 you're going to hear about in the second part of our
6 presentation. That's the part that Susan is going to
7 discuss later on. Just to give you a highlight of
8 what I'm going to talk about, my presentation is going
9 to jump around a little bit. First, I'm going to talk
10 about the NRC's authority, where it comes from, and
11 how we interact with both our state and federal
12 partners to insure the safety and security during
13 transport of radioactive materials. Next, I'll talk
14 about the uses of these radioactive materials. The
15 types of radioactive materials that we are discussing
16 today are primarily used in the medical, academic and
17 industrial applications. To a lesser extent, these
18 materials are also found in the waste of nuclear power
19 plants.

20 And then finally, I'm going to cover the
21 term that we keep talking about today, radioactive
22 materials in quantities of concern. I'll discuss
23 where it came from, what it is and what we've done at
24 NRC to improve security for this category of materials
25 since the events of September 11th. And then

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1 throughout all this, I'm going to try to keep
2 reminding everybody why we are here today and how we
3 are interesting in keeping our communications open and
4 gathering everybody's input on this very important
5 topic.

6 Just to start, NRC does not regulate
7 transportation of radioactive materials alone. We
8 share the responsibility for transportation security
9 with both our federal and state partners. We share
10 the authority with the Department of Transportation,
11 Department of Homeland Security, State and Tribal
12 Governments. And you can see that listed on Slide 6
13 here.

14 It looks like a lot of government but over
15 the years, we've worked out agreements among our
16 agencies to limit and minimize the amount of overlap.

17 One long-standing agreement I want to point out is
18 the agreement between the Nuclear Regulatory
19 Commission and the Department of Transportation. The
20 NRC has broad authority to regulate any transfer of
21 radioactive material. DOT has the authority to
22 regulate commerce, so transportation of radioactive
23 material falls both under NRC and the Department of
24 Transportation.

25 In general, I'm going to describe a little

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1 bit how we worked out this overlap. In general, the
2 NRC is responsible for regulating licensees. Those
3 are the shippers or receivers of radioactive material.

4 That is the company that is arranging for the
5 transfer of material and the company that is receiving
6 it. In general, the NRC does not regulate commercial
7 carriers radioactive material. These are the
8 trucking and rail companies that move the material
9 from Point A to Point B, basically from one location
10 to another.

11 Regulating carriage other by road or rail
12 is the responsibility of the Department of
13 Transportation and the Department of Homeland
14 Security. I'm bringing this up now because when we
15 get to the actual security enhancements that we're
16 going to talk about in the second part of this
17 meeting, you'll notice all the requirements are on the
18 NRC licensee and not the commercial carrier.

19 Slide 7, Authority. The Atomic Energy Act
20 of 1954 as amended gives the NRC its authority to
21 license and regulate civilian use of radioactive
22 material. In addition, the law requires us to insure
23 adequate protection of the public health and safety
24 and to promote the common defense of security and
25 protect the environment. The law gives us authority

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1 to regulate civilian uses of radioactive material
2 which means the NRC's role is not to promote the use
3 of radioactive material but instead our responsibility
4 is to insure that the material is uses safely and
5 securely.

6 First, we regulate civilian use of
7 radioactive material by the issuance of licenses.
8 Licenses are the authorization that the company, the
9 individual or the entity receives from the NRC to
10 possess, use and transfer radioactive material.
11 Besides the issuance of this license, the law gives us
12 two mechanisms to put in place, requirements to insure
13 that the radioactive material is handled safely and
14 securely. One process is by issuing what we call here
15 at NRC an order.

16 An order is a way the Nuclear Regulatory
17 Commission imposes requirements effective immediately.

18 An order modifies the license to possess, use and
19 transfer radioactive material. The one drawback of an
20 order is it does not involve the public in our
21 process. In the area of transportation security --
22 excuse me, and I'll discuss this more in my later
23 slides, the staff identified areas where
24 transportation security could be improved.

25 We issued orders to companies transporting

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1 radioactive material in quantities of concern to put
2 in place additional security measures. These orders
3 were issued in 2003, 2004 and 2005. One thing I'd
4 like to point out is the NRC does not take issuing
5 orders lightly. We don't make that decision at the
6 staff level. In the case of the transportation
7 security orders, that decision was made by our
8 Commission.

9 Besides the order process, the NRC also
10 sets standards, excuse me, and requirements in the
11 form of rules. The rule-making process is a public
12 process and this is the process we prefer to use.
13 It's deliberative. It allows us time to gather
14 everyone's input and taking it into consideration
15 before making any kind of decision in the regulations.

16 And that's why we are here today. We are here to
17 discuss NRC's plan to enhance security during
18 transport of radioactive material in quantities of
19 concern and this meeting is a first step towards
20 setting those additional standards and requirements.
21 And right now we are in listening mode and gathering
22 information.

23 Next slide, Slide 8, Agreement States. I
24 mentioned earlier, the law gives us authority to
25 regulate civilian uses of radioactive material. That

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1 term "civilian uses" covers many different types of
2 radioactive material. And today we're focusing on --
3 primarily on radioactive material used by the medical,
4 academic and industrial community and to a lesser
5 extent what we're discussing today will effect waste
6 products from nuclear power plants.

7 There's another part of the Atomic Energy
8 Act. The Atomic Energy Act also gives the NRC
9 authority to enter into what are called agreements
10 with the states. And as the slide says, NRC
11 relinquishes to the states portions of its regulatory
12 authority to license specific types of radioactive
13 material and I'll go through and explain what that
14 means. And I'm going to break that down into pieces.

15 The last part of that statement says the
16 specific types of radioactive material, what specific
17 types of radioactive material we're referring to.
18 It's called by-product material but to put it simply,
19 it refers to medical, academic, and industrial uses of
20 radioactive material. It does not apply to nuclear
21 power plants. The first part of that statement, NRC
22 relinquishes to the states, that means we effectively
23 create a partnership with the states. We give our
24 authority to regulate medical, academic and industrial
25 uses or radioactive material within a state to the

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1 state. In this case, the state would inform us of
2 their decision to regulate radioactive material. They
3 stand up a program, we review the program and if it's
4 compatible with the NRC requirements, then the NRC
5 effectively relinquishes its authority to that state.

6 We also periodically review these state
7 programs to insure that the state remains compatible
8 with the NRC requirements. Once we've relinquished
9 our authority, the state is the authority over
10 byproduct material uses within their state. Today, 34
11 states have entered into agreements with NRC and
12 others are being evaluated. Soon there will be 35
13 states. Commonwealth of Pennsylvania is going to come
14 on board soon.

15 Slide 9, which is the second part of the
16 Agreement State slide. Next, I'll focus on another
17 portion of that statement. The NRC relinquishes to
18 the states portions of its regulatory authority. The
19 Atomic Energy Act allows us only to relinquish our
20 authority to protect the public health and safety of
21 the states. We cannot relinquish our authority to
22 promote the common defense and security.

23 As I said in the last slide, the NRC can
24 enter into an agreement with the state and relinquish
25 its authority over byproduct material and give that

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1 responsibility to protect public health and safety to
2 the state. The agreement state would then have
3 primary authority to regulate, inspect and take
4 enforcement actions against licensees within its
5 respective jurisdictions.

6 However, the Nuclear Regulatory Commission
7 as a federal agency, cannot relinquish its authority
8 to promote the common defense and security. The
9 responsibility to promote common defense and security
10 of our nation belongs to the Federal Government. In
11 this case, the NRC, for transportation security, could
12 regulate -- would regulate, inspect and take
13 enforcement actions against licensees within state
14 jurisdictions.

15 At the end of this discussion, we're going
16 to gather your comments about how much involvement, if
17 any, should the state have in the enforcement of
18 transportation security regulations.

19 Slide 10, NRC Actions. I'm going to
20 change focus a little bit here now. Immediately after
21 the events of September 11th, the NRC issued security
22 advisories. In general, security advisories are non-
23 public communications between NRC and its licensees
24 that provide information from the intelligence
25 communities or law enforcement agencies on changes to

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1 the threat environment. And it provides guidance to
2 licensees to take some specific action promptly. We
3 issued several security advisories after September 11th
4 and we recommended several security enhancements
5 during transport of radioactive material in quantities
6 of concern. In general, licensees understood the need
7 for these -- understood the change in the treat
8 environment and implemented these security advisories,
9 but security advisories are not legally binding.

10 And by legally binding what I mean is the
11 NRC cannot compel compliance with a recommendation in
12 an advisory. So while the advisories were in place,
13 the NRC issued orders. We issued orders to licensees
14 in 2003, 2004 and 2005 that enhanced security on
15 transportation of radioactive material in quantities
16 of concern.

17 And it sounds like -- it sounds like we
18 issued a lot of orders and we did. The reason why it
19 spanned so many years was because there were a lot of
20 security activities going on at NRC following
21 September 11th. And I'm simplifying this but in
22 essence, we took a graded approach. We took the most
23 risk significant activities and issued requirements to
24 them first. By 2005, essentially every licensee
25 transporting radioactive material in quantities of

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1 concern received an order. At the end of the process,
2 orders were issued to more than 2,000 NRC Agreement
3 State licensees.

4 So now I'm going to get back to why we're
5 here today. We have adequate security measures in
6 place and the orders can stay in place indefinitely.
7 But now it's time to put in place requirements that
8 everyone has had a say in. That's our process, to
9 insure that everyone gets a chance to provide their
10 comment and help inform the regulations. We are at
11 the beginning stage at revising our regulations.

12 We are at the step of developing what's
13 called a technical basis. This basically identifies
14 what we want to change or add into our regulations and
15 to start the discussions today, we are using the
16 security concepts of the advisories and the orders as
17 a basis. Some of the advisories and orders contain
18 sensitive information and are not publicly available
19 but the general security concepts of these documents
20 can be used to start our discussions. So for today
21 and for the next few weeks, we'll gather your comments
22 on this proposed policy change.

23 Now, I'm going to change focus again. I'm
24 going to provide some -- for the people on the phone,
25 I apologize. I'm on Slide 11, medical, academic and

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1 industrial uses of radioactive material. I'm going to
2 provide some background information on medical,
3 academic and industrial uses of radioactive material
4 and then I'm going to repeat again, the NRC's role is
5 not to promote radioactive material but rather to
6 insure that it's handled safely and securely.

7 Slide 12, these are medical uses of
8 radioactive material. The smaller photo in the slide
9 is of an older style teletherapy unit that was
10 commonly used for the treatment of cancer. Its use is
11 being replaced by other newer techniques but it's
12 still used in some medical institutions within the
13 United States and is still used outside the United
14 States.

15 The larger photo is what's called a gamma
16 knife teletherapy unit. These units focus beams of
17 radiation into a specific site within the brain. This
18 is used for cancers or other conditions where the
19 location of the tumor is not reachable by surgery or
20 when surgery is considered too invasive. Another
21 medical use is blood irradiation. This is used for
22 people with weakened immune systems.

23 When someone with a weakened immune system
24 is receiving blood from a donor, the donor blood is
25 irradiated to destroy its antibodies. This prevents

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1 the donor blood from attacking the recipient.

2 Slide 13, Industrial Uses of Radioactive
3 Material. This is a schematic of a large industrial
4 radiator that sterilizes medical equipment. The
5 medical equipment enters into the facility, you can
6 see, on the left-hand side of the photo and it enters
7 in its final shipping configuration. It's placed into
8 a container onto a conveyor belt and it's passed
9 through the facility on conveyor belts and through the
10 irradiator. The strength of the field and the length
11 of time that it's left in the radiation field results
12 in sterilization of the equipment. Then the
13 sterilized equipment exits the facility on the right-
14 hand side of the photo where it's then shipped to a
15 hospital or medical facility that plans to use the
16 equipment.

17 This is another area where NRC shares
18 authority with another federal agency. We, at NRC,
19 provide the license for possessing and using the
20 radioactive material. The NRC also insures that the
21 material is safely and securely used but the approval
22 for the sterilization process itself is provided by
23 the Food and Drug Administration.

24 Okay, Slide 14, Research and Industrial
25 uses of Radioactive Material, another area where

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1 radioactive material is used in research in industrial
2 settings. The upper left-hand photo is of a cesium
3 137 irradiator which is used for research purposes.
4 The lower photo is of a radiography camera.
5 Radiography cameras are used to check the integrity of
6 welds. Welds can be found everywhere in piping
7 systems, submarines, bridges, buildings. That's just
8 naming a few spots and everyone expects that weld to
9 hold up. So during the fabrication process, an x-ray
10 is taken of the weld to insure there isn't a defect.

11 In general, the shielded radioactive
12 source is placed on one side of the weld and the
13 radiographic film is placed on the other side of the
14 weld. After the correct safety precautions are taken,
15 the sources is unshielded for a set amount of time
16 which exposes the film. I think everyone has seen an
17 x-ray of a broken bone. Well the concept is the same
18 for checking a weld. After the process, you end up
19 with an x-ray picture of the weld and if the weld is
20 fine, the fabrication process moves on. If it has a
21 defect, then the weld is fixed.

22 The last photo in the upper right-hand
23 corner is of a fixed gauge. The gauges in this photo
24 are used at a processing facility and are used -- at a
25 processing facility and are used to detect flow rates

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1 within the pipe. If you'll notice underneath the
2 photo, it says "aggregate quantities". A single one
3 of these gauges isn't considered a quantity of concern
4 but multiple gauges brought together would be.

5 Okay, now Slide 15, what is RAMQC? I've spent
6 some time giving you background on what we do at NRC.

7 I've also tried to describe the radioactive materials
8 that we're referring to and their uses. And today's
9 discussion is about keeping these materials secure
10 during transport. So what is RAMQC? RAMQC is an
11 acronym for Radioactive Materials in Quantities of
12 Concern.

13 There are hundreds of radioactive
14 materials that exist but RAMQC specifically refers to
15 16 radioactive materials and these are materials that
16 are commonly used in medical, academic and industrial
17 settings and that someone could use with the intent of
18 something malicious.

19 One thing I want to emphasize, that when
20 we are talking about RAMQC, we are not talking about
21 spent nuclear fuel. Spent nuclear fuel is another
22 category of radioactive material. Slide 16, after
23 9/11 -- prior to September 11th, the NRC's focus was on
24 the safety and security of people and the environment,
25 by protecting them from the inadvertent or accidental

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1 release of radioactive material.

2 The attacks of 2001 led the NRC and the
3 Department of Energy to reconsider how far a terrorist
4 would go to hurt the public and perhaps using medical
5 and industrial radioactive materials to cause this
6 harm. As part of our process, the NRC reviewed the
7 chemical, physical and radiological characteristics of
8 each radioactive material. The NRC also joined with
9 the international community to look at medical and
10 industrial radioactive materials with this as its main
11 consideration. This effort was led by the
12 International Atomic Energy Agency with an active
13 participation by the NRC.

14 Okay, Slide 17, this international effort
15 identified 16 commonly used radioactive materials that
16 could pose a serious threat to the people and the
17 environment in the wrong hands. This effort further
18 identified the different quantities or thresholds of
19 materials that could be useful to someone intent on a
20 malicious act. The International Atomic Energy Agency
21 published these results in a document entitled "The
22 Code of Conduct on the Safety and Security of
23 Radioactive Sources" and a link to this document can
24 be found on the NRC's website.

25 Slide 18, Radioactive Materials Quantities

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1 of Concern. These are the 16 commonly used
2 radioactive materials and their associated threshold
3 limits. As you can see in the table, Category 1 is
4 100 times more than Category 2. So to provide an
5 example, if you have one gallon of paint, that's
6 equivalent to a Category 2 category. A hundred
7 gallons of paint or two 55-gallon drum's worth would
8 be equivalent to a Category 1 quantity. I've
9 mentioned before the orders that were issued after
10 September 11th in the area of transportation security.

11 The orders that were issued are listed on the slide.
12 They were issued to large panoramic irradiator
13 licensees, manufacturing and distribution licensees,
14 transporters of radioactive materials in quantities of
15 concern, and other material licensees. And as I said
16 earlier, after all these efforts were done over 2000
17 licensees received orders.

18 Okay, Slide 20, Process. The NRC values
19 public involvement on our regulatory process and we're
20 committed to keeping the public informed. By its
21 nature, our rule-making process is deliberative and
22 takes time. The process has now started and our first
23 step in this process is for us to prepare what we call
24 a technical basis. The technical basis is the
25 document that identifies the regulation the staff

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1 believes needs revisions or needs new requirements.
2 All the information gathered during these meetings and
3 from the written comments will be considered in the
4 technical basis. Once the technical basis is complete
5 and goes through all sorts of review within the NRC,
6 the staff will then prepare a draft proposed rule and
7 we'll use the technical basis to develop the proposed
8 language for this new rule. Again, this will be
9 looked at, scrutinized throughout NRC and it will go
10 to our Commission for approval.

11 After Commission approval, this draft
12 proposed rule will also be published for public
13 comment. We'll gather and disposition all the
14 comments and those comments will be used to inform the
15 final rule. Again, the final rule will go through all
16 sorts of scrutiny and review within the NRC and will
17 go again to our Commission for approval. After all
18 the public comments are resolved, the final rule will
19 be published and usually the final rule is effective
20 30 days after publishing.

21 So where are we at in this process? Our
22 technical basis is scheduled for completion in Spring
23 2008 and the comments we receive at these meetings and
24 written to us will also be answered on our public
25 website. The draft proposed rule is scheduled for

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1 publication in Spring 2009 and the new rule is
2 expected to be published in 2010.

3 And that completes my portion of the
4 presentation. I'll turn it over to Lance.

5 MR. RAKOVAN: Thanks, Adelaide. I want to
6 open the floor up now if there are any clarifying
7 questions that anyone had on Adelaide's presentation.

8 If you do have a question, if you could approach one
9 of the microphones and you know, first introduce
10 yourself, let us know who you are. Again, we're going
11 to ask that only one person speak at a time so we can
12 keep a clean transcript. And of course, I'll ask the
13 phones if there's anyone on the phones who has a
14 question in a moment, but I wanted to open it up to
15 the floor first.

16 Any questions on any of the materials that
17 Adelaide went over? I'll pause for a second to see if
18 anybody gets up. Lee, go ahead.

19 MR. COX: Lee Cox, Organization of
20 Agreement States, also representing North Carolina.
21 One thing I've never been clear on is the NRC, it is
22 very clear that you guys promote common defense and
23 security and protect the environment. So what process
24 or decision making whatever throws the transportation
25 into common defense and security rather than public

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1 health and safety, because the agreement states we
2 license, regulate the same material, inspect for
3 security but when it comes to transportation, the
4 decision was made that throws this into common
5 defense. Is that -- is there a process for making
6 that determination and what is that process?

7 MS. GIANTELLI: So the question is
8 basically have we made a final decision on whether
9 this policy will be under common defense and security
10 or under public health and safety? Is that a fair
11 assessment?

12 MR. COX: That would be a good second
13 question. But sure, you can broach that, too.

14 MS. GIANTELLI: For this -- I'll answer
15 the second question first. We have not made a
16 decision. It is a decision that -- that's a legal
17 decision, not made at our level, at the staff level.
18 It will be made by the Commission, whether or not this
19 falls under public health and safety or falls under
20 common defense and security and that was essentially
21 the process that was filed over the past few years to
22 issue the two different orders, the Category -- excuse
23 me, the orders that were issued on transportation of
24 radioactive materials in the Category 1 quantities,
25 that was issued under common defense and security and

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1 that decision was made by our Commission.

2 And then the second order, the -- you
3 would realize that --

4 MS. RASMUSSON: Excuse me.

5 MS. GIANTELLI: -- were called the
6 increased controls orders, those were issued under
7 public health and safety, and again, that decision was
8 made at the Commission level.

9 MS. RASMUSSON: Hello?

10 MR. RAKOVAN: Let me guess on the phones
11 you're having trouble hearing?

12 MS. RASMUSSON: This is Melanie from Iowa.
13 We are hearing -- we are having difficulty hearing
14 you.

15 MR. RAKOVAN: Okay, Adelaide, if you could
16 speak up a little, please.

17 MS. GIANTELLI: Okay.

18 MS. RASMUSSON: Thank you.

19 MR. RAKOVAN: Thank you.

20 MS. GIANTELLI: Is this better?

21 MS. RASMUSSON: Yes, thank you.

22 MS. GIANTELLI: Okay. The decision of
23 whether a policy is under common defense and security
24 or under public health and safety is not the most
25 satisfying answer but it's a decision made at the

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1 Commission level. And we have published security
2 orders under both. We issued the orders for transport
3 of Category 1 quantities, the radioactive materials in
4 quantities of concern. Those were issued under common
5 defense and security and that determination was made
6 by our Commission and then the second order which was
7 issued to -- that effected companies transporting
8 Category 2 quantities of material, again, that was
9 issued under public health and safety and that was a
10 decision made by our Commission.

11 I'm not sure if anybody here at the table
12 has anything more to add but it was a decision made by
13 the Commission.

14 MR. COX: So it sounds like the revision
15 to this order is maybe you're still thinking about
16 putting that under public health and safety.

17 MS. GIANTELLI: It is a possibility, yes.

18 MR. RAKOVAN: And I think that's one of
19 the questions that we're actually going to be bringing
20 up towards the end of the meeting and looking for
21 input specifically on.

22 MR. COX: Thanks.

23 MR. RAKOVAN: Got a question over here, if
24 you could let us know who you are, please.

25 MR. STEPHENSON: Boyd Stephenson, American

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1 Trucking Associations. Federal law already gives FMSA
2 and DOT the ability to regulate the transportation of
3 hazardous materials and gives the Transportation
4 Security Administration and DHS the regulatory power
5 over security of sensitive hazardous materials, both
6 of which radioactive materials fall under. Is the NRC
7 and DOE actively pursuing a Memorandum of
8 Understanding with those two other departments about
9 where the regulatory boundaries fall between those
10 agencies?

11 MS. GIANELLI: Yes. There is a
12 Memorandum of Understanding between the Nuclear
13 Regulatory Commission and the Department of
14 Transportation and it -- right now it's on safety,
15 transportation safety. We are -- that was one of the
16 recommendations a few years ago. There was the Energy
17 Policy Act Task Force which involved -- which NRC led
18 and it involved many federal agencies which included
19 TSA and Department of Transportation and one of the
20 recommendations that came out of that was a
21 recommendation to pursue a Memorandum of Understanding
22 among NRC, TSA and DOT and we are working towards
23 that. It's not in place yet, though.

24 MR. STEPHENSON: So at the moment the
25 regulatory authority is still with DOT and DHS.

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1 MS. GIANTELLI: No, we have authority as
2 well.

3 MR. STEPHENSON: Okay.

4 MS. GIANTELLI: The Atomic Energy Act
5 gives us authority over all transfers of radioactive
6 material as well.

7 MR. STEPHENSON: Thanks.

8 MS. GIANTELLI: Okay.

9 MS. FERROBINT: Lynne Ferrobint with AAPM.
10 Adelaide, I just want you to clarify, did you say
11 the second set of orders was issued then to Health and
12 Safety?

13 MS. GIANTELLI: Yes.

14 MS. FERROBINT: Okay, so also then I could
15 take your answer to Lee's question to be that in going
16 forward with rule-making, a decision could be made
17 that would reverse that to common defense and security
18 as well.

19 MS. GIANTELLI: That is a possibility.
20 There's basically three options. We can either issue
21 them all under public health and safety, all under
22 common defense and security or some combination of the
23 two. All three options are on the table right now.

24 MR. BOYLE: Thank you. This is Rick Boyle
25 from the Department of Transportation. I just have

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1 two points, I'll go through them one at a time. As
2 you define the RAMQC, have you looked at additional
3 nuclides. I think if you look at that Code of
4 Conduct, they have what they've been calling below the
5 line nuclides which don't appear in your list of 16.
6 The other aspect is they've also progressed in the
7 following years. They have a table that lists all
8 nuclides that they do say as unlikely as it may be,
9 they do have a table with values for all nuclides and
10 I wondered if you had looked into that.

11 The other aspect is, are you concerned
12 about the form of the material. As we move large
13 shipments of low specific activity material,
14 decommissioning components, some of these may have
15 quantities of concern but in a form you're not
16 concerned with and then also as you get into RAMQC,
17 are you worried or are you paying attention to how
18 your security requirement is going to effect the
19 source recovery, recovering orphan sources and unused
20 sources worldwide? I'll let you address that before I
21 ask some questions about the tech basis.

22 MR. RAKOVAN: Do you want to get into in-
23 depth answers on those? I mean, the reason we're
24 here, as we've said, is to discuss these issues and to
25 get your suggestions on what we should look into, in

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1 terms of the rule. So I don't know if you're okay
2 with just taking those questions and say, "You should
3 look into these matters", as opposed to asking the
4 questions on whether we have or not. We're just
5 starting with the rule here. So, I mean, we could
6 take your questions as suggestions, if you would. I
7 don't know if Adelaide wants to try to address all of
8 them or --

9 MS. GIANTELLI: I'm agreeing with you,
10 Lance, we'll take all those as suggestions for
11 consideration as part of the tech basis. We are --
12 right now, we were just focusing on the 16 radioactive
13 materials but that does not mean that we should look
14 at the -- we can consider looking at the whole list of
15 radioactive materials because IAEA, you're right, has
16 been coming out with recommendations for how to handle
17 all radioactive materials. So we'd like to take that
18 as a suggestion for things to look at as part of the
19 tech basis, yes.

20 MS. BAGLEY: But is that --

21 MR. RAKOVAN: Susan, use a mike, please.

22 MS. BAGLEY: But is that your suggestion
23 that we expand the list to include these other items
24 that you're mentioning, the expanded list that IAEA,
25 as long as they're low specific activity?

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1 MR. BOYLE: I guess I'm a little confused
2 here. I figured if you put up a list of things you're
3 concerned about, you'd have some reason to say, "This
4 is why I'm concerned about these".

5 MS. GIANTELLI: Well, we're focusing on
6 these because they're the most commonly used. But if
7 the recommendation is to expand that list, we're going
8 to consider it. The same thing, your comment about
9 the bulk sources, that has been a suggestion in past
10 meetings to come up with some sort of, you know, an
11 activity dispersion or, you know, some sort of
12 activity weighing for the sources and not apply it to
13 bulk sources. And that's a suggestion we're going to
14 take, yes.

15 MR. RAKOVAN: Do you understand that we're
16 here to get your input and your ideas? I mean, we
17 have the orders and those have already happened, but
18 we're looking to take the orders and to move those
19 into the regulations. And to do so, we're hoping to
20 get input on what we should take into account when
21 we're attempting to put these into rule-making.

22 So that's why when you came up with all
23 those questions, they just -- to me they sounded like,
24 "Well, you should look into this when you're doing
25 your rule-making, you should look into this while

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1 you're doing your rule-making, which is why I kind of
2 did the swap on you there.

3 MR. BOYLE: Yeah, I noticed the swap on
4 me. The problem we're having is we don't know what's
5 an intelligent question. We would assume if you
6 present a list of nuclides, you've looked at a broad
7 spectrum and you've decided these are the right
8 things. We don't have your tech basis from the orders
9 or anything else. So we don't know, have you looked
10 at other things or how did you -- you arrived at a
11 subset of the Code of Conduct, which you quote the
12 Code of Conduct. Do we assume you've looked at
13 nothing else and we should base our questions
14 accordingly or is there reference material so we can
15 see the things you've looked at and you've eliminated
16 some and why you might have eliminated them? Or do
17 you just want a very large cross section of questions?

18 MS. GIANTELLI: We do want a large cross
19 section of questions but --

20 MR. PURDY: Gary Purdy of NSIR. Just to
21 answer some of your questions, that how we originally
22 came up with a list was in one of Adelaide's slides
23 she mentioned that the NRC and DOE work together to
24 develop an original list before the Code of Conduct
25 list was revised in what, about 2003, and published in

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1 2004.

2 In that list, we took a look at all the
3 radio-nuclides that are used in NRC licenses and DOE
4 world and then they went through and looked at what
5 would be an attractive radio-nuclide for a malicious
6 act. And from that, they came up with a list that
7 looked just like the Code of Conduct, the ones that
8 were above the line. There were a few more radio-
9 nuclides that weren't important to NRC world.

10 We did not -- the Commission did make a
11 decision not to use the radio-nuclides below the line
12 because they are not generally found in quantities,
13 Category 1, 2 and 3 quantities. They're usually very
14 small sources. There is also a -- out of the Energy
15 Policy Act of 2005, the -- which was mentioned
16 earlier, there was a task force that was run by the
17 Commission to review security issues.

18 And one of the taskers that's come out
19 from that report is for the Federal Government to go
20 through and relook at the list, should it be expanded
21 to include more radio-nuclides and that task force is
22 starting fairly soon if it hasn't already started.
23 And if you want to see some of the reports, there were
24 two reports that, you know, that talked about how we
25 determined what these radio-nuclides were.

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1 You won't see the original list of radio-
2 nuclides but those are available in our ADAMS, and we
3 probably can provide some input if someone wants
4 questions, we probably can find the number that we can
5 look those two reports up. Does that answer your
6 questions?

7 MR. BOYLE: Somewhat. I'll submit further
8 comment if you'd rather address them --

9 MR. PURDY: Yes, we have looked beyond
10 what was in the Code and we're continuing to look at
11 additional radio-nuclides of concern is the bottom
12 line.

13 MR. BOYLE: And then I would trust you're
14 also looking at form, as Adelaide had said, previous
15 comments came up on low specific activity material,
16 decommissioning, things along those lines.

17 MR. PURDY: When we originally developed
18 what are now the increased controls, which were a
19 Category 2 quantities of radioactive material, those
20 were not intended to be implemented for low specific
21 activity. We did not consider that to be a form that
22 can be used for a malicious purpose. And there is a
23 process that a licensee could to through to be
24 essentially exempted from those requirements for that
25 kind of activity but they would have to come in and

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1 ask and give a reason why.

2 MR. BOYLE: Thank you.

3 MR. PURDY: But that could be another part
4 of the rule-making, it would be to come up with
5 specific activities, perhaps.

6 MR. BOYLE: I just and one further point
7 at this time on the technical basis. The first point,
8 was there a technical basis for the orders, all the
9 orders you put out and are those available somewhere
10 through ADAMS and the second point, I know we're not
11 talking about spent fuel here, but I believe there are
12 orders and regulations dealing with the security of
13 spent fuel so that we can look at what was done with
14 spent fuel and insure consistency with RAMQC and
15 completeness with RAMQC. Is there a direction or a
16 web site we could look at to find out both the basis
17 for the orders and whatever you have going with spent
18 fuel right now? Thank you.

19 MR. PURDY: I'll answer the first half and
20 I'll let Adelaide answer the second. There is no
21 technical basis for the orders. They were developed
22 by a working group, the Materials Security Working
23 Group that consisted of various offices from NRC and
24 Agreement States. We went through and -- through a
25 process to determine which would be the most effective

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1 additional security measures and as Adelaide stated
2 earlier, we started with the panoramic irradiators and
3 then we went to the manufacturers and distributors and
4 then other licensees such as medical facilities,
5 universities, radiographers, well-loggers, those types
6 that took the graded approach and we developed those.

7 And I'll let Adelaide answer the second half.

8 MS. GIANELLI: You are correct about the
9 orders being issued for transport of spent fuel. That
10 -- those orders are not publicly -- I mean, the
11 security measures in those orders are not publicly
12 available. They contain sensitive security
13 information and at this point are not releasable.

14 Similarly, there was no -- as Gary said,
15 there was no tech basis for those orders. There were
16 recommendations written to our Commission but again,
17 those documents are not publicly available. They
18 contain sensitive security information. The next step
19 in the process, our first process is to change our
20 policy on transported radioactive material in
21 quantities of concern. The revision of requirements
22 for spent fuel, transportation of spent fuel will be
23 after this effort.

24 MR. BOYLE: Thank you.

25 MR. RAKOVAN: I wanted to go to the phones

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1 to see if there was anyone on the phone line who had a
2 question to ask. If you do, if you could introduce
3 yourself, please.

4 MR. PARKER: My name is Roy Parker. I'm a
5 radiation physicist consultant and I'd like to preface
6 my remarks by saying that the views that I express
7 here today are solely my own and do not necessarily
8 represent those of any of my clients.

9 It's been stated that the NRC does not
10 regulate transportation and it's my understanding that
11 the Memorandum of Understanding between the Department
12 of Transportation and the NRC only has a common ground
13 or with the NRC regulates spent nuclear fuel. It
14 seems to me that in quantities of concern beyond spent
15 nuclear fuel, that the NRC may be exceeding their
16 authority under that Memorandum of Understanding.
17 The first point that I would like to make.

18 The second one is, is that the -- again,
19 NRC does not regulate carriers or transportation but
20 they are be de facto -- you're by de facto, attempting
21 to regulate carriers by the orders and what you're
22 trying to do apparently, without success, is to have
23 the licensees that is a shipper of radioactive
24 material, impose certain requirements on the carriers.
25 And those carriers, individual carriers, some of

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1 these individual carriers will be subject to the
2 myriad of interpretations of each potential license or
3 other shipper out there. That will not work. It also
4 implies that each licensee, i.e., shipper, may inspect
5 or may possibly think they have the right to inspect a
6 carrier. They do not.

7 A carrier cannot and will not be subject
8 to the individual interpretation of each individual
9 licensee nor the potential inspection by each
10 independent licensee. It is questionable, in my
11 opinion, if the NRC has the right or responsibility to
12 impose those types of orders on their licensees,
13 shippers in the orders that have been issued.

14 MR. RAKOVAN: Okay, thank you, sir. Do
15 any of you guys want to make any comment on that or do
16 we just want to take that as two comments for the
17 transcript?

18 (No audible response)

19 MR. RAKOVAN: Yeah, I see some nodding of
20 the heads. Okay. Okay, I think we're just going to
21 take those as comments. We appreciate those comments,
22 sir. Anyone else on the phone line have something
23 that they would like to comment on or a question
24 they'd like to ask at this point?

25 Anyone else in the crowd?

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1 MR. BRANDT: Yeah, this is Clayton Brandt,
2 from New York State Department of Health. Even if the
3 Memorandum of Understanding between the NRC and the US
4 Department of Transportation allows the NRC to
5 regulate the transportation of radioactive materials,
6 how would that effect the Agreement States' authority
7 to regulate within their states the transportation
8 since also within the states the US DOT is responsible
9 for transportation of any hazardous materials? I
10 don't know where a Memorandum of Understanding between
11 the NRC and the DOT would authorize the states to
12 assume that regulatory role absent a memorandum of
13 understanding between each state and the Department of
14 Transportation?

15 MR. RAKOVAN: Does somebody want to
16 address Clayton's question? Susan?

17 MS. BAGLEY: Let me start with the first
18 part. The Memorandum of Agreement or Understanding
19 between us and the DOT does not give us authority to
20 regulate transport. The Memorandum defines the
21 responsibilities of the transport so that we don't
22 overlap if we can avoid overlapping in all cases. So
23 I just wanted to clarify that.

24 So your question is, with -- you have
25 Department of Transportation regulations that carriers

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1 have to follow when they transport through your state.

2 And then you also have the NRC regulations that
3 licensees have to follow when they transport material
4 through your state. So you want to know what your
5 authority is now to transport material? Is that
6 correct, because I kind of lost track of your -- of
7 what exactly you were asking?

8 MR. BRANDT: Well, the question is how
9 does the -- you know, the memorandum between the NRC
10 and the DOT delineating areas of responsibility
11 between NRC and DOT? Wouldn't there need to be a
12 similar MOU between each state, each Agreement State
13 and the US Department of Transportation to define
14 their responsibilities if an Agreement State would be
15 to impose regulations similar to those that are being
16 contemplated by the NRC?

17 MS. BAGLEY: If you recall earlier in the
18 presentation Adelaide explained that under certain
19 areas the NRC delegates authority to the states so
20 when the NRC delegates authority to the states, that's
21 where then they have the authority to regulate.

22 MR. BRANDT: No, the Agreement State
23 program is not a delegated program. There's no
24 authority delegated from the NRC to the Agreement
25 States. The Agreement States regulate under state

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1 authority, not federal authority. We enforce state
2 law, not federal law.

3 MS. GIANTELLI: I think we're getting
4 twisted up in the concepts here. There -- ultimately
5 the Department of Transportation regulates commerce
6 and would regulate the carriage of material from one
7 point to another point and there shouldn't be a need
8 for any independent agreements with the states and I
9 would say Rick would agree with me on that.

10 The -- what -- I think what you're asking
11 is whether these requirements are going to be issued
12 under common defense and security or under public
13 health and safety. Is that correct? Because if
14 they're issued under public health and safety, then we
15 would relinquish our authority to the state in this
16 area. If they're issued under common defense and
17 authority, the NRC would retain the authority and then
18 it becomes a question of what role the state plays in
19 the regulation and enforcement of security
20 requirements and that's one of the questions that we
21 have that we're trying to gather information on later
22 in this meeting.

23 MR. BRANDT: Yeah, I mean, that's the
24 precursor to my question. If it's -- the regulations
25 are issued under common defense and security, then

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1 there's no issue for the Agreement States. It's not
2 their responsibility. If on the other hand, they're
3 issued under public health and safety, then the
4 question of whether separate MOUs between each
5 Agreement State and the DOT would become operative.

6 MS. GIANTELLI: I don't think you would
7 need -- you would have the same setup that's right
8 here that we have right now in terms of that there's
9 an Memorandum of Agreement between the Department of
10 Transportation and the NRC. There's no individual
11 agreements with DOT on safe transport of radioactive
12 material. It's the same -- you would have the same
13 situation as you have existing now. Does that
14 answer your question?

15 MR. BRANDT: I guess I'd have to see the
16 regulations. If -- you know, right now we don't
17 actually regulate the transportation, per se, once
18 it's in transit, radioactive materials.

19 MS. GIANTELLI: Right.

20 MR. BRANDT: If it's by common carrier
21 that is.

22 MS. GIANTELLI: Right, but you insure --

23 MR. BRANDT: It's not in our jurisdiction.

24 MS. GIANTELLI: But you would insure that,
25 for example, in Part 20 there's a requirement that the

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1 material has to arrive at its destination and the
2 shipper has to verify that it arrived, correct?

3 MR. BRANDT: Yes, but I was thinking of
4 some of the other requirements, I mean --

5 MS. GIANTELLI: That would be a
6 requirement. See all the requirements are on the
7 licensee, and not on the common carrier. The
8 requirements are that the licensee put in place
9 certain -- put in place -- excuse me, put in place
10 certain security measures.

11 MR. BRANDT: Yes, so --

12 MS. GIANTELLI: And it's not on the
13 carrier, so there's no need to have these independent
14 agreements with DOT.

15 MR. BRANDT: Oh, there's no --

16 MS. GIANTELLI: It's solely on the
17 licensee, insuring that the licensee puts controls in
18 place during the transfer of the material.

19 MR. BRANDT: I was thinking of some of the
20 requirements for having safe havens, places for --

21 MS. GIANTELLI: Again, that's on the
22 licensee.

23 MR. BRANDT: Stop-over, you know, constant
24 communication, that sort of thing, which are really
25 requirements on the carrier.

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1 MR. RAKOVAN: Clayton, have we more or
2 less addressed your question? I'd like of like to
3 move on.

4 MS. GIANTELLI: I think we're getting into
5 the second part of the discussion, too, and I think
6 those are good topics to bring up in the second part
7 as well.

8 MR. RAKOVAN: Okay, so is it all right to
9 move on, Clayton?

10 MR. BRANDT: Oh, yeah, that's fine.

11 MR. RAKOVAN: Okay, just wanted to check.
12 If you could introduce yourself again, please.

13 MR. STEPHENSON: Boyd Stephenson with
14 American Trucking Association. Just -- since you're
15 taking advice, I just would recommend that as Class 7
16 nuclear hazardous materials are already heavily
17 regulated by the Department of Transportation, as any
18 sort of technical basis or NPRM is developed, I would
19 encourage you to copious and continuously review what
20 already exists in the DOT regulations, so that there
21 is never ever conflict, because from the carrier side
22 of the equation, it would be absolutely horrible to
23 have to stop shipping any sort of nuclear material
24 because the rules for the shipper and the rules for
25 the carrier are in direct conflict with each other.

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1 MR. RAKOVAN: Thank you. Anyone else on
2 the phones or here in the auditorium have a question
3 or comment, they'd like to make at this time?

4 (No audible response.)

5 MR. RAKOVAN: Okay, hearing nothing and
6 seeing nothing, I know the clock in the back is a
7 little late but we're going to take about a 15-minute
8 break at this point. That puts us between nine and 10
9 on the clock back there, so we'll try to get started
10 in about 15 minutes.

11 (A brief recess was taken.)

12 MS. BAGLEY: Good afternoon. I'm Susan
13 Bagley, and my presentation starts on Slide 21,
14 "Enhancing Security During Transport."

15 FACILITATOR RAKOVAN: Susan, do you mind
16 if I say a few words before we get started?

17 MS. BAGLEY: Oh, no. I appreciate your
18 initiative, I really do. It's great, but I just
19 wanted to go over a few things before we got started
20 with things. For those of you here in the audience,
21 if you need to leave early for some reason, we've got
22 a couple of people sitting right in the back of the
23 room there who could escort you back to security, and
24 make sure that everything is taken care of, so you can
25 leave quickly, and hopefully without any problems.

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1 I mentioned the feedback forms at the
2 beginning of the meeting. For those of you who are
3 leaving early, or even if you're going to stick
4 around, you can either leave those on the table
5 outside, hand those to one of the NRC people, or you
6 can drop them in the mail. They're free, so they
7 won't cost you postage.

8 And, again, before Susan starts, I just
9 wanted to remind you we're here looking for your
10 ideas, and just to get your input in terms of what we
11 should include in this rule making. Susan is
12 basically going to be going through a number of
13 different topics, topic-by-topic, and she's going to
14 kind of toss some ideas out there. And then we're
15 going to take a break, and see what you guys think
16 about that particular topic, what we have down, if
17 it's good, if it should be changed, et cetera. So
18 we're going to be going a little step-by-step with
19 Susan's, as opposed to Adelaide's where we went
20 through the entire presentation. So I guess I'll turn
21 it over to Susan, then.

22 MS. BAGLEY: Thank you. Again, I'm Susan
23 Bagley, and we're starting on Slide 21.

24 I want to thank you for coming and
25 participating in this meeting today, and reiterate

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1 what everyone has told you over and over. We're here
2 for your comments, and your ideas, to hear your
3 suggestions, and the reasons behind those suggestions.

4 Adelaide provided you some background on
5 the NRC or the Nuclear Regulatory Commission, and our
6 mission to protect people and the environment. She
7 explained there are several methods the NRC uses to do
8 this, advisories, orders, and regulations. Changing
9 regulations is the most open process we have, and that
10 is why we're here today, to engage the public, and our
11 stakeholders in the process.

12 Remember, Adelaide said prior to 9/11 NRC
13 regulations focused on protecting the public from the
14 inadvertent or accidental exposure to radioactive
15 material. Since 9/11, we have been working to insure
16 that we protect the public from a purposeful attempt
17 to misuse radioactive material.

18 In that light, these security measures are
19 designed to protect against theft and diversion, and
20 in the event of attempted theft and diversion, insure
21 the attempt is promptly detected, assessed, and
22 reported. What do we mean by prompt? Right away, or
23 as soon as possible, without delay. We also want to
24 insure prompt law enforcement notification and
25 response.

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1 The final enhancement we are looking at is
2 delivery confirmation, which insures that none of this
3 material is unaccounted for, somehow lost in transit.

4 Each of these requirements exist in different orders,
5 and are being followed today, and every day for the
6 past few years. But as Adelaide explained, orders are
7 a more immediate solution to a new or changed
8 situation. Changing federal regulations takes longer,
9 and one of the reasons it takes longer is so that we
10 can engage the public in the process.

11 Slide 22. The security measures are
12 divided into seven categories; verification, valid
13 license to possess, and a valid address. Those are
14 the two areas we're looking at under the verification
15 area, or two of the areas, the main areas. Planning
16 and coordination; plan the route, coordinate the route
17 with the states that it goes through, and coordinate
18 with the receiver of the material. Notifications;
19 advanced planning on who to call if something happens.

20 Communications, two ways, two separate and distinct
21 ways to communicate if you need to. Drivers and
22 assistants; key piece to security in moving this
23 material are the drivers and the assistants. They
24 need to keep the material moving, and they need to
25 watch it when it's stopped. Procedures; planning them

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1 in advance, know what you're going to do, and protect
2 the information from unnecessary disclosure. That's
3 need-to-know, only those who need to know that the
4 material is on the road and being moved should have
5 that information.

6 The final enhancement are for portable and
7 mobile devices. Adelaide showed you photos of some of
8 these devices during her presentation. We have some
9 on the posters out in the lobby. They are basically
10 industrial and medical equipment that travels from
11 site to site in a personal or company truck.

12 Slide 23. The highlighted category at the
13 end of each of the bullet lines indicates the category
14 of material we're suggesting that these enhancements
15 should apply to. Again, we're looking for comment, so
16 if you think that this should be expanded, we want to
17 hear it, but we want to also hear why you think it
18 should be expanded, or if it should be contracted, and
19 only apply to Category One, being the greater
20 category, Category Two, being the lesser quantity.

21 For the verification enhancement we are
22 suggesting they apply to shipments involving the
23 larger quantities of materials. Requirement One is
24 not a new requirement; however, what is new in this
25 requirement is for the shipper to make direct contact

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1 with the NRC, or the appropriate state authority to
2 insure the receiver has a valid license to possess the
3 material. Currently, the regulations allow several
4 ways for a shipper to verify a license. This would
5 change that, and there would be only one way, direct
6 contact with the licensing authority.

7 In Requirement Two, an unusual purchase
8 would be an amount or type of material that differs
9 from the normal order for that business. These
10 companies have longstanding relationships with each
11 other, and the individuals involved in this shipping
12 material are like all of us, and want to make sure the
13 material is used properly, so they have a good idea of
14 what the standing order of business is. So if they
15 get an unusual order, or an unusual quantity, they
16 need to verify with the orderer that that is an actual
17 request.

18 Requirement Three should also include the
19 word "different", because the point is to make sure
20 the material is protected from being purposefully
21 misdirected. So if they a new address to deliver the
22 material to, they need to verify that it's a valid
23 address. Why is the material going to this address?
24 Has the company expanded operations? Do they have a
25 temporary operation happening somewhere? So they need

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1 -- any time they get a new address that they don't
2 normally ship to, they need to verify that address.

3 FACILITATOR RAKOVAN: Okay. At this
4 point, we're going to just kind of open things up on
5 this particular topic. If anyone here in the
6 audience, or anyone on the phone has comments or an
7 idea that they would like us to take into account, now
8 is the time to step up. Again, this won't be your
9 only time that you have to make a comment on there. I
10 will be going at the end of the meeting and discussing
11 how you can get comments in after the meeting, et
12 cetera. And, certainly, if you bring up verification
13 later in the meeting, we're not going to stop you from
14 making your comments, but at this time, does anyone
15 have any comments they'd like to make involving
16 verification? And, again, if you could identify
17 yourself.

18 MR. BOYLE: I'm Rick Boyle with the
19 Department of Transportation. It's not verification
20 that's in your goals. Is that appropriate now? Slide
21 21, your goals.

22 FACILITATOR RAKOVAN: Do you want to see -
23 - yes, let's bounce back up. Go ahead.

24 MR. BOYLE: Okay. Thank you. This isn't
25 verification. I wanted to ask why isn't sabotage

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1 being covered, and is it being covered someplace else?

2 MS. BAGLEY: Again, I would take that as a
3 comment of sabotage. It is not one of the original
4 constraints that we use when we discuss these
5 enhancements, but it doesn't mean that we can't go
6 back and use it.

7 MR. CALDWELL: To follow on that -- this
8 is Bob Caldwell. Follow on to that, I think if you've
9 stolen the stuff, or you diverted it, then you've got
10 something in mind, and the end result is sabotage.
11 And what we're trying to do is prevent it before that,
12 so I think, from my perspective, that that falls in
13 line under theft or diversion.

14 MR. BOYLE: Thank you. I won't debate
15 whether it's easier just to blow something up in
16 place. As it drives by the correct building, you're
17 prepared for it, and you don't bother to steal it.
18 I'll make a comment on that. And then I'd also
19 comment that there's been a long time between when you
20 put your orders out, and what's going on today, so I
21 would hope that you're looking at that research and
22 those threat assessments to make sure the measures
23 you're proposing are effective.

24 I think the case in point recently, Wal-
25 Mart doesn't use those radio frequency I.D.s as widely

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1 as they thought they were going to do it, so I would
2 hope that as Wal-Mart has researched their security,
3 and their shipping procedures, you would do the same
4 thing.

5 The second aspect I'd like to make as far
6 as your scope, am I correct in that you are only
7 addressing domestic surface transportation? You have
8 excluded, and you're not in the field of transits
9 trans-shipments, and you are not covering air and sea?

10 MS. BAGLEY: That is correct.

11 MR. BOYLE: Are you covering -- I mean,
12 the material as it goes from the manufacturer to the
13 airport, to the port?

14 MS. BAGLEY: Yes. If the manufacturer is
15 an NRC licensee, the material is covered during that
16 portion. Yes.

17 MR. BOYLE: So it would be covered to the
18 port, but not once it got to the port.

19 MS. BAGLEY: Once it left the port, once
20 it got on the ship. At the port, we consider that
21 still in transit.

22 MR. BOYLE: And then the other aspect --
23 and I recommend you consider your measures as multi-
24 modal. I think what's happening is, as you put the
25 requirements on, if you don't think that way, certain

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1 things make sense in rail shipments, and don't make
2 sense in surface transport, and vice versa. Constant
3 monitoring of the shipment is very good if you're a
4 truck. It doesn't make any sense if you're a train.
5 It can't be done. So if you're not careful with what
6 requirements you put on, you're apt to exclude a mode,
7 so I would recommend you start looking at the multi-
8 modal hazard, and the multi-modal nature of this
9 material as you develop criteria.

10 MS. BAGLEY: Excellent point. Thank you.

11 MR. BOYLE: And is it clear, are you not
12 in transit trans-shipment in this effort, or the NRC
13 is not doing that at all any more?

14 MS. BAGLEY: Trans-shipments are not being
15 addressed in this effort.

16 MS. GIANTELLI: This is Adelaide
17 Giantelli. The NRC is still very much involved with
18 the federal government family, so to speak, of effort
19 to look at trans-shipments of radioactive material.
20 That's where, just to define it for the audience,
21 that's where there is an NRC licensee involved in the
22 transaction. It starts in a foreign country, passes
23 through the United States, and then leaves the United
24 States to go on to another foreign country. So at
25 this point in time, this effort is not going to

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1 address transit trans-shipments, but we are -- at this
2 point, the authority lays with Department of
3 Transportation, and Department of Homeland Security,
4 and we are working in a greater group to try to help
5 address that issue.

6 There was another thing that I wanted to
7 add about the -- I'm sorry. I lost my train of
8 thought on this one.

9 FACILITATOR RAKOVAN: Okay. Any other --
10 do you want to go back to the verification slide,
11 Susan?

12 MS. BAGLEY: Yes.

13 MR. PARKER: This is Roy Parker.

14 FACILITATOR RAKOVAN: Please, Roy, go
15 ahead.

16 MR. PARKER: I'd like to follow-up on this
17 multi-modal thing. It's going to be extremely
18 difficult to separate air transport and road
19 transport. For example, a shipment tendered by air,
20 many times it is up the carrier to determine whether
21 it's transported by air, or by road. And when it's
22 tendered, it may not be known, the routing may be
23 changed, so, basically, you've got to recognize that
24 there is an integral process here, by which the
25 shipper and only the carrier has control. Thank you.

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1 MS. BAGLEY: Thank you. And, Roy, since
2 you have experience, we would appreciate your
3 comments on this. If you would send them on the
4 website, the website has -- and at the end of the
5 presentation, which I think you should have gotten a
6 copy, there's an NRC address to send those comments
7 and suggestions on why and ways we should do this.

8 FACILITATOR RAKOVAN: Any additional -- go
9 ahead, please.

10 MS. ROUGHAN: Kate Roughan from QSA
11 Global. I'm not clear why this verification is
12 included under the transport regulations, under the
13 standard license transfer there's additional orders.
14 Since that, there's an enhanced -- there's an order
15 coming out very soon on additional license
16 verification methods, so I'm not sure how those two --
17 these regulations and that order are going to mesh,
18 but I think that needs to be looked at.

19 MS. BAGLEY: Thank you.

20 FACILITATOR RAKOVAN: Any additional
21 discussion on verification at this time? Adelaide,
22 please, yes, go ahead. Just make sure you stay close
23 to the mic.

24 MS. GIANTELLI: Okay. Rick, you brought
25 up the fact that there's been some time since the

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1 orders have been issued. I agree, the orders were
2 issued back in 2005. We're using that time to develop
3 the Lessons Learned, figure out -- this is the time
4 for everybody to figure out what worked, what didn't
5 work, where we need to tweak the requirements, where
6 we need to go further. This is part of the process,
7 so we're going to use -- we're going to go back and
8 look through what we've learned during the last two
9 years, or two and a half years since the orders were
10 issued. And your comment was excellent telling us --
11 reminding us to do that. Thank you.

12 FACILITATOR RAKOVAN: Okay. Susan, do you
13 want to go ahead on to the next topic?

14 MS. BAGLEY: Yes. We're going to go to
15 Slide 24 now. There are two slides in this category.

16
17 Departure time is coordinated with state
18 authorities to allow states the opportunity to add any
19 additional security measures they deem necessary.
20 Arrival time is coordinated for both categories of
21 materials to insure prompt detection of a missing or
22 lost shipment. This is a requirement that is on both
23 the shipper and the receiver of the material.

24 Receipt confirmation is a requirement on
25 both the shipper and receiver, also. And this insures

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1 that they contact one another to insure the material
2 has arrived safely, and in tact.

3 Pre-planning and coordination,
4 coordinating the shipment with state authorities
5 allows the state the opportunity to develop emergency
6 procedures, arrange escorts, and require pre-planned
7 actions for drivers, shippers, or receivers.

8 Slide 25. Carriers differ from shippers
9 in that carriers are the actual trucking company that
10 physically moves the material, and carriers are not
11 normally NRC licensed companies. Carriers are
12 regulated by the Department of Transportation, and DOT
13 regulations include strict requirements for moving
14 radioactive material on public highways, and roadways,
15 and railways.

16 Commercial tracking systems are available
17 from Fed Ex, UPS, DHL. They tell you where the
18 package was last. Continuous and active monitoring
19 means the tracking system can pinpoint the shipment in
20 a relatively small geographic area. Driver control
21 and ability to contact assistants requires the drivers
22 have physical or visual control of the material at all
23 times, and the ability to call for assistance. That
24 made a good picture. That's the end of the two slides
25 for this.

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1 FACILITATOR RAKOVAN: Any discussion on
2 planning and coordination? If you could introduce
3 yourself, please.

4 MS. OSOWITZ: Yes. I'm Karen Osowitz from
5 System Planning Corporation. We make a track and
6 monitor system. And I'm wondering whether you all are
7 examining all the products that are out there on
8 tracking and monitoring systems. The last two years
9 have seen tremendous growth, and not just kind of
10 rearview mirror ones like RFID readers at key points,
11 but systems like our's that will tell you where things
12 are in real time, or near real time. Will you be
13 looking at those in your process?

14 MS. BAGLEY: What we do is we make -- we
15 try to insure that the technology is available before
16 we apply the requirement. And as you've pointed out,
17 the technology seems to be more and more available
18 every day we go into the future, so thank you.

19 MS. OSOWITZ: Okay.

20 FACILITATOR RAKOVAN: And I believe,
21 aren't we going to have some discussion, or at least a
22 request for discussion on that later as one of our
23 follow-up questions?

24 MS. BAGLEY: Yes. We have three follow-up
25 questions, and the third question specifically deals

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1 with monitoring and tracking.

2 FACILITATOR RAKOVAN: Please.

3 MR. STEPHENSON: Boyd Stephenson with the
4 American --

5 MS. RASMUSSEN: I'm sorry. We missed that
6 last statement that she just made.

7 FACILITATOR RAKOVAN: Okay. Hold on.
8 Susan, you want to repeat that real quick?

9 MS. BAGLEY: Yes. At the end of the
10 presentation, there are three questions that we
11 directly ask the audience to comment on. And the
12 third question has to do with tracking and monitoring
13 shipments.

14 FACILITATOR RAKOVAN: And thanks for
15 keeping us honest on the phones. Please.

16 MR. STEPHENSON: Boyd Stephenson, American
17 Trucking Association. It was two comments, but now
18 that we're going to talk about tracking at the end,
19 we'll deal with the second one then. Actually, we'll
20 just pull it in now. You talk about active
21 monitoring. I just wondered whether or not you all
22 have had any coordination with the Transportation
23 Security Administration. They are currently running
24 pilots with the State University of New York out of
25 Buffalo on satellite tracking of carriers of hazardous

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1 materials. If you haven't had any conversations with
2 them about their results and where things are going, I
3 would suggest that you do consult with them, for
4 reasons of coordination, as well as Lessons Learned.

5 The other reason is you talk about
6 carriers with commercial package tracking, such as
7 UPS, Fed Ex, and DHL. While it is true that they do
8 provide package tracking, they don't accept nuclear
9 Class VII loads, which means that currently there's no
10 one that accepts that, that provides commercial
11 tracking.

12 (Off mic comment.)

13 MR. STEPHENSON: I stand corrected.

14 FACILITATOR RAKOVAN: Did they get that on
15 the transcript?

16 MS. BAGLEY: Yes. I think -- did she say
17 Fed Ex does?

18 FACILITATOR RAKOVAN: Fed Ex does. Okay.

19 MS. BAGLEY: Okay. I'll update my
20 presentation. I also thought that DHL and UPS did
21 that, but just Fed Ex? Thank you.

22 FACILITATOR RAKOVAN: Any other comments
23 at this point from either the crowd here, or on the
24 phone?

25 MS. BAGLEY: I did want to address that.

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1 We met with TSA prior to the start of their program,
2 and we had discussions on what suggestions on what we
3 thought they should consider. And we have recently
4 met with them again to get an update on that program,
5 so we are involved in -- actively involved in learning
6 what they're doing, and staying abreast.

7 FACILITATOR RAKOVAN: Thank you.

8 MR. PARKER: This is Roy Parker. I would
9 just like to make a short comment, no time to go into
10 details, but all four of those five items under five
11 use carriers which are subject to extreme
12 interpretations, and there's a wide breadth on all of
13 them, and nobody, in my experience, speaks with a
14 common tongue on this.

15 MS. BAGLEY: Roy, again I would ask you,
16 if you could clarify how we could write it in a
17 regulation to make it clearer so there isn't as much
18 wiggle room, so to speak, that would be great, if you
19 had suggestions in your comments.

20 MS. ROUGHAN: I'm Kate Roughan from QSA
21 Global. Again, the carriers are regulated by the DOT.
22 And as Roy indicates, there's a different of
23 interpretation of how the NRC requirements, how the
24 carriers have to implement it. We've had several
25 carriers that will not sign that they will meet all

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1 four of those requirements. Their fallback is that
2 they meet the DOT security requirements, and that's
3 what they're -- we're having great difficulty in
4 finding and keeping carriers that can comply with the
5 order, or that we can demonstrate comply with the
6 order. I think, again, this needs to default back to
7 the DOT, who regulates the carriers. I think this is
8 a key part of this proposed regulation.

9 MS. BAGLEY: We appreciate that feedback.

10 FACILITATOR RAKOVAN: We've got someone
11 here in the audience who'd like to make a comment.
12 We'll go back to the phones in a second.

13 MR. BOYLE: Thank you. This is Rick Boyle
14 from the Department of Transportation. I would just
15 comment, I think this planning and coordination phase
16 is an area where you trip a little bit more into the
17 transportation side, rather than the licensee side,
18 and I would encourage you to work closely with TSA on
19 the provisions you're putting in, but also suggest you
20 work with the Federal Motor Carrier Safety
21 Administration, and the Federal Railroad
22 Administration. I think earlier in your presentation,
23 you give quite a lot of credit, and I think correctly,
24 to the FAA and the Coast Guard for monitoring and
25 controlling their mode. I think you should give the

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1 same consideration to those two agencies, and work
2 with them on what plans they have in place, what
3 actions they think are prudent, and what actions they
4 do not think are prudent.

5 Some of the comments I'd look at as a
6 representative from the hazardous material safety side
7 is, it seems odd to me that you're telling, or you're
8 asking the licensee to set the route, rather than the
9 carrier. And that would be difficult if the route
10 needs to be varied, and it has to be set.

11 I'm also saying the regulations require
12 taking the most direct route, and then I'm interested
13 as we've had large efforts, and very difficult efforts
14 on setting safe havens, or safe harbors. As you enter
15 a state that requires inspection or some other field,
16 are you prepared to set up safe havens as you enter
17 that state, because the carrier is going to be faced
18 with what do I do as I wait for the state police to
19 come get me, or inspect me. And your licensee isn't
20 going to be there, so I'm interested in what work
21 you've done with safe havens, and what work you've
22 done with TSA, and the Motor Carrier Safety
23 Administration, Railroad Administration.

24 FACILITATOR RAKOVAN: Susan, do you want
25 to address any of that at this time?

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1 MS. BAGLEY: Well, I think the first half
2 of Rick's comments, we will take back his suggestions
3 that we coordinate -- as we come up with the draft
4 proposed rule, that we then coordinate with our
5 federal partners to insure that we have no conflicts
6 with their regulations, and we are supporting their
7 regulations.

8 On the other hand, I'm not prepared here
9 to give a presentation on everything we've done to
10 this point to come up with these, so I will just take
11 that as a comment.

12 FACILITATOR RAKOVAN: Okay. Anyone else
13 here or on the phones have a comment that they'd like
14 to make at this time?

15 MS. FABRICATORE: I have a question.

16 FACILITATOR RAKOVAN: Sure. Who are you,
17 please?

18 MS. FABRICATORE: This is Terre
19 Fabricatore from Qinetiq North America. I was just
20 wondering if you could clarify. The categories of
21 requirements that we are going over right now, are any
22 of these actually implemented at this point, or are
23 these just recommendations that you are looking at for
24 implementing new requirements? Just to clarify.

25 MS. BAGLEY: All of these requirements

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1 that we're discussing today exist in NRC issued
2 orders.

3 MS. FABRICATORE: Oh, so they exist in the
4 orders that we had talked about earlier, the two --

5 MS. BAGLEY: Yes, they do.

6 MS. FABRICATORE: Category One and
7 Category Two.

8 MS. BAGLEY: Yes. This is the basis or
9 the framework that we're starting with as we move
10 towards regulation. We're starting with what we
11 already have in place out there in our security
12 orders.

13 MS. FABRICATORE: Okay. So these are so
14 far required for transporting the radioactive
15 materials?

16 MS. BAGLEY: Yes. And they have been
17 required for two and a half years now.

18 MS. FABRICATORE: Okay. Thank you.

19 MS. BAGLEY: Or longer.

20 FACILITATOR RAKOVAN: Any further
21 discussion on planning and coordination? Microphone,
22 please.

23 MR. BOYLE: Thank you. This is Rick
24 Boyle. Point of clarification. How much about the
25 orders are we allowed to discuss? I understood they

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1 were sensitive, so to talk to the features in the
2 orders, and when they were put in place in a public
3 meeting, is that open for discussion and we can
4 discuss the orders, or are we keeping those off the
5 table? Thank you.

6 MS. BAGLEY: When the orders went in place
7 is not controlled information. There are certain
8 specific security information in the orders that we
9 will not discuss, but the general concepts behind the
10 orders are what you see in here, and that would be
11 what we would formulate for the regulations. Because,
12 as you know, the regulations are in the public domain,
13 so all of these concepts are in the orders, some more
14 specific than others, so I'm not sure what --

15 FACILITATOR RAKOVAN: We're trying to keep
16 it to public information, so information that's being
17 discussed here today should be public only
18 information.

19 MS. BAGLEY: Right.

20 FACILITATOR RAKOVAN: Bob, did you want to
21 say something?

22 MR. CALDWELL: We're looking at these
23 seven items as being the framework. We don't really
24 need to go into a whole lot of detail about how much
25 of each, or either one are in the orders. I'm really

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1 not -- to be quite honest, I'm really not concerned
2 about the orders for this meeting. These are the
3 framework of the items that we've thought about, that
4 would go from where our security regulations exist
5 now, to where we need to go later. Some of them may
6 be necessary in the future, some of them may not. We
7 haven't made that decision. This is just a way of
8 talking about in a framework in a public place, about
9 the general concepts we're talking about. So, quite
10 frankly, no need to talk about the orders, per se,
11 because that's -- we're not here -- I want to make
12 sure, we are not here to codify the orders. That's
13 not the intent. We're here to get new information,
14 additional information to figure out the right way to
15 go. So these are just concepts, general security
16 concepts that make sense, that we've implemented a
17 variety of ways that we're talking about.

18 MR. STEPHENSON: Boyd Stephenson, American
19 Trucking Association. Just to sort of stick with the
20 issue of when the rules actually do come out, I assume
21 that they will be considered sensitive, and reserved
22 to regulated parties. I just think that as you
23 consider exactly who will and will not have access to
24 viewing the final rules when they're published to
25 maintain the country's security, that you remember

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1 that it's not just shippers that will need access to
2 view the rules, it will also be the carriers. If
3 they're being indirectly regulated, they will need to
4 have access to see them. And, currently, a lot of
5 carriers don't have access to see the orders, which is
6 why you don't have a whole lot of carriers that are
7 willing to accept right now, because it's possible
8 that different shippers interpret the orders in
9 different ways, and then a carrier has two different
10 shippers saying the orders say two different things,
11 and it's impossible to say what the NRC has told the
12 shipper they need to do, and what the shipper has
13 decided they want the carrier to do on top of that.

14 MS. BAGLEY: Okay, Boyd. The regulations
15 will be published, so they will be in the 10 CFR.
16 Implementing guidance will then be a need-to-know
17 basis. And what I will do is, I hope, paraphrase what
18 you're saying, and that you want the carriers to be
19 included in any need-to-know information. And that if
20 we have implementing guidance that's on a need-to-know
21 basis, that somehow carriers should have access to
22 that. Is that correct?

23 MR. STEPHENSON: That is correct. It will
24 create a logistically large, problematic situation if
25 carriers don't have access to the rules that are

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1 indirectly regulating them, as opposed to directly
2 regulating them.

3 MS. BAGLEY: Okay. Thank you.

4 FACILITATOR RAKOVAN: Okay. We have time
5 for at least a couple of more comments before we have
6 to move on, if anybody has them.

7 MS. ROUGHAN: This is Kate Roughan from
8 QSA Global again. In terms of the planning and
9 coordination, I would recommend that NRC take a look
10 at the national Source Tracking Database, because I
11 think a lot of the requirements that's under planning
12 and coordination can be met by effectively
13 implementing that National Source Tracking Database in
14 a fairly quick manner.

15 MS. BAGLEY: Thank you.

16 FACILITATOR RAKOVAN: One more chance
17 before we move forward.

18 (No audible response.)

19 FACILITATOR RAKOVAN: All right. Susan,
20 you want to go ahead and move to the next topic,
21 please?

22 MS. BAGLEY: Slide 26: Notifications.
23 First, shippers must notify the NRC and affected
24 states before shipping. Notification could be
25 electronic or a written submission. Requirement Two

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1 insurers shippers and receivers are in touch at
2 delivery time, and initiate an investigation promptly
3 if the shipment is missing. Investigation would
4 include calling the driver, in the case of a Category
5 One shipment, and tracking the package through an
6 online process for Category Two shipments.

7 Requirement Three requires that law
8 enforcement, the NRC, and state authorities be
9 notified if investigation reveals the shipment may be
10 lost, missing, or stolen. The comments we are looking
11 for here is who should be responsible for notifying
12 the NRC when an agreement state licensee is involved.

13 FACILITATOR RAKOVAN: Okay. Thank you,
14 Susan. Any comments or discussion on notifications?

15 MR. PARKER: This is Roy Parker.

16 FACILITATOR RAKOVAN: Please.

17 MR. PARKER: Again, the term -- my
18 experience again has got a wide breadth of
19 interpretations, and different people have different
20 time tables, different conceptions of when something
21 is supposed to be there and not, different
22 interpretations by carriers, shippers, so forth and so
23 on, so this is not a straightforward area as it
24 appears. Thank you.

25 MS. BAGLEY: Thank you.

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1 MS. RICHARDT: Kelley Richardt, Source
2 Production.

3 FACILITATOR RAKOVAN: Please, go ahead.

4 MS. RICHARDT: I'd like to point out that
5 in Part 110 in the import/export requirements, there
6 are already requirements in place for notifications of
7 import and export shipments, so I'd like to see that
8 those are taken into account.

9 FACILITATOR RAKOVAN: Okay. Thank you.
10 I've got two people here that I want to go to in the
11 audience. Sir, if you could tell us who you are,
12 please.

13 MR. CHARRETTE: Mark-Andre Charrette, MDS
14 Nordion. Notification has been quite a problem for
15 us, and a lot of it has to do with interpretation by
16 states. They require a lot more information than
17 usually is outlined, and when you don't provide the
18 information, or you provide partial information,
19 because a lot of the time you don't know what's
20 happening, shipments are not coordinated seven days in
21 advance, and they change often before they actually
22 happen, so you're re-sending notification, and a lot
23 of states actually don't like that. They like
24 everything to be done seven days in advance, and
25 nothing changes after that, so this has been an area

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1 that's caused quite a lot of problems. We've been
2 told many times that we could face denials in that
3 state if we don't provide the seven-day notification.

4 This is an area that needs a lot more thinking to
5 make sure that it is feasible, and it does match
6 what's happening with the industry, how movements and
7 trucks, and coordination of all of these activities
8 take place.

9 MS. BAGLEY: We've had other feedback on
10 that also, like that, so thank you. That's good to
11 know.

12 FACILITATOR RAKOVAN: Miss?

13 MS. KEYES: Debbie Keyes with AMEC Earth &
14 Environmental. We happen to do industrial
15 radiography, and so you have two totally separate
16 categories when you're talking about notifications.
17 You have our company rigs that carry the cameras
18 around, and we also have to ship by common carrier
19 when we get new material and what have you. If it's a
20 company rig, then we should be the ones reporting. If
21 we're shipping by common carrier, the common carrier
22 would have to notify us first, if it's our
23 responsibility, and then we would have to report, in
24 answer to your question on who should report. If it's
25 the carrier's responsibility to report, the report is

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1 going to be done quicker.

2 MS. BAGLEY: Thank you for your comment.
3 I do want to make one thing clear, that we're talking
4 about the transfer of material between two licensees,
5 so if you're working with material within your
6 company, until we get to the mobile and portable
7 device part, this part wouldn't apply. That's
8 correct. Right? No?

9 FACILITATOR RAKOVAN: Gary, do you want to
10 step in and clarify, or no? Hold on. If you're going
11 to talk, you've got to be on the mic. Here. You want
12 to use this one?

13 MR. PURDY: I was just going to say for
14 notifications, this is any time Category One material
15 is on the road, even if it's transferred or transport.
16 The verification requirement was transfer between two
17 licensees, is when that applies.

18 MS. BAGLEY: Okay. But normally, portable
19 and mobile devices are Category Two amount, not a
20 Category One amount.

21 FACILITATOR RAKOVAN: Any further
22 discussion on notifications either here in the
23 auditorium, or on the phone lines?

24 (No audible response.)

25 FACILITATOR RAKOVAN: Okay. Susan, you

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1 want to go ahead and move forward?

2 MS. BAGLEY: Slide 27: Communications.
3 Before we begin to discuss the suggested communication
4 enhancements, I'd like to define the concept of a
5 communication center. By the communication center, we
6 mean a 24-hour, seven-day operation that has the
7 capability to assist, track, and respond to any
8 incidents involving a shipment. It may be part of the
9 shipping company, or it may be a separate company
10 contracted or hired to perform the service.

11 In the area of communications, we've
12 talked about redundant, meaning a backup or second
13 means of communication. Well, not only does the
14 driver need a second means of communication, but the
15 second type of communication cannot be subject to the
16 same type of interference or failure as the first.
17 For instance, they both can't work on cell tower
18 technology. One can, one can't. They both can't work
19 on vehicle power, or the vehicle battery. They have
20 to have two separate, totally separate ways of
21 communicating so that if the vehicle is dead, you can
22 still communicate, or if there's no cell towers in the
23 area, you can still communicate.

24 The third enhancement provides a passive
25 means of communication between the driver and the

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1 communication center. Nothing the driver does affects
2 this. The truck automatically transport -- is sending
3 a signal.

4 The fourth enhancement requires the driver
5 to periodically call the communications center. And
6 the final communication enhancement is assurance that
7 procedures are in place to provide guidance to the
8 driver and the communications center in an emergency.

9 The driver needs to have instructions on what to do
10 if he feels threatened, or if his truck is breaking
11 down.

12 This requirement and the requirements
13 under procedures may require training. We are looking
14 for comments in the area of training. Training is
15 something that has recently been talked about in the
16 two meetings we've had prior to this.

17 MS. OSOWITZ: Karen Osowitz from System
18 Planning Corporation. We ran into this issue when we
19 were briefed on the PSA HAZMAT trucking issue. First
20 of all, this sort of assumes a truck and a hauled
21 load, and doesn't really cover rail well at all. And
22 it also sort of makes the trucker the active player.
23 Well, truck tractors can be separated from the load,
24 so I think you need to think about the load, and you
25 need to think about the cab and the tractor as

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1 separate entities, and when you want to track each
2 one.

3 MS. BAGLEY: Thank you.

4 FACILITATOR RAKOVAN: Any further
5 discussion? Again, these are just kind of our
6 starting point. Sir?

7 MR. CHARRETTE: Mark-Andre Charrette, MDS
8 Nordion. This has been mentioned a little bit in the
9 past, but the need for a communications center and
10 continuous monitoring is one of the reasons why we've
11 given up rail transport all together. It's impossible
12 for us to be able to do -- meet the requirements, so
13 we used to transport our material through rail
14 transport, which we believe still is to be fairly
15 secure and efficient way of transporting material.
16 These requirements have made it impossible. We've
17 given up on it at this point, so I would suggest that
18 you reconsider rail transport, and the possibility of
19 being able to put measures in place that would allow
20 us to be able to do rail transport effectively again.

21 MS. BAGLEY: Thank you.

22 FACILITATOR RAKOVAN: Additional comments
23 at this point involving communications or any other
24 topics that we've covered?

25 MS. RICHARDT: Kelley Richardt, Source

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2 FACILITATOR RAKOVAN: Please.

3 MS. RICHARDT: I would follow-up on
4 somebody else's comment on the issue of continuously
5 and actively monitoring in that you need that you need
6 to consider whether you're trying to monitor the
7 truck, the package, or the radioactive material,
8 because they all could become separated from each
9 other.

10 MS. BAGLEY: Yes, thank you.

11 FACILITATOR RAKOVAN: Additional
12 discussion at this time?

13 (No audible response.)

14 FACILITATOR RAKOVAN: Okay. Susan, you
15 want to go ahead and move forward to the next topic?

16 MS. BAGLEY: Slide 28: Drivers and
17 Assistants. These requirements affect drivers, pre-
18 set call-in times to report to the communication
19 center, and pre-set stops that the communication
20 center is aware of at the beginning of the route. No
21 casual stops during the route. One driver stays with
22 the shipment, always stays awake, and checks the
23 trailer for tamper indications when stopped. For rail
24 shipments, an escort is required whenever the rail car
25 is not attached to a moving train.

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1 FACILITATOR RAKOVAN: Any discussion on
2 drivers and assistants at this point, either in the
3 audience or on the phone? Please, go ahead.

4 MS. OSOWITZ: Karen Osowitz, System
5 Planning Corporation. TSA had a Notice of Proposed
6 Rulemaking in early 2007 that had a -- was for HAZMAT
7 rail transport, which they've never promulgated, but
8 it covered this in some detail, including eyes-on
9 issues, so you might want to look at what they
10 collected, and what they learned.

11 MS. BAGLEY: Thank you.

12 FACILITATOR RAKOVAN: Further comments?

13 MR. HAMILTON: Yes, I have a comment. My
14 name is Eric Hamilton.

15 FACILITATOR RAKOVAN: Please, Eric, go
16 ahead.

17 MR. HAMILTON: I'm with Tyden Brammall,
18 and we are a security seal manufacturer involved in a
19 number of government standards issues, and other
20 things in industry, as well. And the comment about
21 the drivers inspecting the conveyance for tamper
22 indication does require some level of training. And
23 as this program goes forward, I would recommend that
24 that is included in your consideration.

25 MS. BAGLEY: Thank you.

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1 FACILITATOR RAKOVAN: Further comments or
2 discussion? I can tell you guys are just sitting
3 there letting all this simmer, and you're going to go
4 back to your offices, and you're just going to write
5 out all sorts of stuff for us. Right? It's worth a
6 shot. Okay. Go ahead, Susan.

7 MS. BAGLEY: Slide 29: Procedures.
8 Shipment information is only shared with individuals
9 with a need-to-know. And information is not left out
10 in the open on desks, or computers. Understanding
11 what is normal, and preparing for the unusual.
12 Normal, driver calls prior to departure, sets up call-
13 in times, provides the name of his assistant, possibly
14 verifies duress codes with the communication center.

15 Contingency planning could include some of
16 the following: identifies when to use authentication
17 or duress codes, provides training to drivers and
18 assistants, and the communication center on procedure;
19 during an emergency should not be the first time
20 individuals read a procedure.

21 FACILITATOR RAKOVAN: Any discussion on
22 procedures, or any of the topics that we've covered up
23 to this point?

24 MS. FABRICATORE: Sir?

25 FACILITATOR RAKOVAN: If you could

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1 identify yourself, please.

2 MS. FABRICATORE: This is Terre
3 Fabricatore again from Qinetiq North American. I was
4 curious if you could outline the contingency
5 procedures again. Just repeat what she had said
6 before.

7 MS. BAGLEY: What I said about contingency
8 procedures is that they could include some of the
9 following, so if the requirement was for the licensee
10 or the shippers to develop contingency procedures,
11 they would include items like when to use an
12 authentication or duress code. It would provide
13 training to drivers and their assistants, and the
14 communication center on the procedures when they had
15 an event, because during an emergency should not be
16 the first time that the individuals are aware of a
17 procedure of what they should do if something happens.

18 MS. FABRICATORE: Okay. Thank you.

19 FACILITATOR RAKOVAN: Any discussion on
20 procedures?

21 (No audible response.)

22 FACILITATOR RAKOVAN: Okay. Let's move
23 forward.

24 MS. BAGLEY: My final slide is on portable
25 and mobile devices, my final slide, not the final

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1 slide today. Devices used in the course of their
2 work, i.e., radiography cameras. They require two
3 separate locking devices. The vehicle must be
4 disabled every time it's stopped permanently, and the
5 vehicle must be locked, and the keys secured when
6 you're away from the vehicle. And the vehicle must
7 have an alarm system on it. This is Category Two
8 portable and mobile devices.

9 MS. KEYES: Debbie Keyes with AMEC Earth &
10 Environmental. So an industrial radiography device is
11 a Category Two device, but you're telling me that
12 these are the only requirements that apply to me, none
13 of the other ones for Category Two material apply, if
14 it's a portable device.

15 MS. BAGLEY: No, these are in addition to
16 the other Category Two requirements. It's the
17 verification of the licensee and the address, because
18 they're not shipping it, they're taking it with them.
19 They have control of their radiography camera.
20 That's the only category that wouldn't apply in this
21 case. All the other categories where the requirement
22 said it would apply to Category Two material would
23 apply to this.

24 MS. KEYES: Like the notification for
25 Category Two.

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1 MS. BAGLEY: Right. Like if it was lost
2 or missing, yes.

3 FACILITATOR RAKOVAN: Any additional
4 discussion on portable and mobile devices, or any of
5 the other topics that we've covered up to this point?

6 (No audible response.)

7 FACILITATOR RAKOVAN: Boy, they must be
8 doing a lot of thinking. Yes, that is good. Okay.
9 I think at this point we've got a few additional
10 questions that we wanted to kind of toss out to see if
11 we could facilitate some discussion. And I think,
12 Adelaide, are you going to go through these? Okay.
13 Starting with additional question one, which is on
14 Slide 31. And make sure you talk into the mic, okay?

15 MS. GIANTELLI: Okay. Additional Question
16 One is, basically, where should the NRC revise its
17 regulations. The two parts of the regs that are the
18 Code of Federal Regulations that we thought made the
19 most sense for revising are either Part 20, which are
20 standards for protection against radiation, and
21 possibly even 10 CFR Part 73, which is physical
22 protection of plants and materials.

23 I can tell you in the last two meetings,
24 we've gotten suggestions to also revise Part 30, or to
25 put these requirements under Part 71.

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1 MS. RASMUSSEN: I'm sorry, we can't hear
2 very well. I wonder if you could repeat the last few
3 sentences about Part 20 and Part 73.

4 MS. GIANTELLI: Okay.

5 FACILITATOR RAKOVAN: We're going to get
6 her to use the mic, and project one of these days, I
7 promise you.

8 MS. RASMUSSEN: Thank you. Thank you.

9 MS. GIANTELLI: Our thoughts are the
10 places to revise the regulations, there's two possible
11 locations that we were thinking made the most sense.
12 Part 20, which are standards for protection against
13 radiation, and in Part 20 there are some requirements
14 for reports, or there already exists requirements for
15 reports, or theft, or loss of material; or under Part
16 73, which is physical protection of plants and
17 materials, which also has in-transit security
18 requirements for other types of materials, special
19 nuclear material, and spent nuclear fuel.

20 In the last two meetings, we've also
21 received recommendations to make changes to -- to
22 possibly consider changing Part 30, or Part 71. We're
23 pretty much an open book on recommendations for where
24 these regulations make the most sense, so I open the
25 floor to it.

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1 FACILITATOR RAKOVAN: Any discussion at
2 this point on this particular question, either here in
3 the audience, or on the phones?

4 MS. ROUGHAN: Kate Roughan from QSA
5 Global. Again, since this applies to the transport
6 and the movement of the radioactive material, it
7 should fall under security so that DOT and TSA can do
8 the appropriate regulations, and monitoring and
9 enforcement. I think this is a security issue. It
10 should be covered under the carrier requirements,
11 because they're the ones physically moving the
12 material.

13 MS. GIANTELLI: Okay. So are you asking
14 us to put it in NRC's -- 10 CFR, Code of -- Title 10 -
15 -

16 FACILITATOR RAKOVAN: It sounds like she
17 wants it not part of our regulations at all.

18 MS. GIANTELLI: Code of Federal
19 Regulations, Part 73. Yes, or are you saying you want
20 us to not consider this policy change at all?

21 MS. ROUGHAN: Again, I think it's
22 difficult to implement the security requirements on
23 the carrier, and that's where a lot of these are going
24 to fall. Obviously, any of the shipper requirements
25 should be under Part 73 of the physical security.

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1 Anything relating to the actual movement of the
2 material should fall on to the carriers.

3 MS. GIANTELLI: Okay. So you're saying,
4 basically, the indirect requirements on carriers we
5 shouldn't even be implementing or considering
6 regulatory change, but everything else should be under
7 Part 73.

8 MS. ROUGHAN: Yes, that's correct.

9 MS. GIANTELLI: Okay.

10 FACILITATOR RAKOVAN: Sir?

11 MR. CHARRETTE: Actually, Kate just said
12 exactly what I was going to say.

13 FACILITATOR RAKOVAN: Okay. That was
14 easy. Any further reaction to this particular
15 question? Yes, please.

16 MR. STEPHENSON: I just wanted to say --
17 Boyd Stephenson, American Trucking Association.
18 Probably the most appropriate place in the Code of
19 Federal Regulations is Title 49, but I just -- given
20 the regulations you're attempting to write on
21 carriers, but the fact that the NRC licenses shippers,
22 can we sort of go into some of the liability issues
23 that would exist if the carrier fails in its duty. Is
24 that an issue where the NRC is going to hold the
25 shipper responsible, and then the shipper is

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1 responsible for working out any other details that may
2 happen for that failure in their contract with the
3 carrier? Is the NRC proposing to regulate the
4 carriers directly for their performance in these
5 matters?

6 MS. GIANTELLI: We are not planning to
7 directly regulate carriers. That's not the intention.

8 The intention is to put a requirement on the
9 licensee, but you're bringing up some good points
10 about if

11 the --

12 MR. CALDWELL: Licensees are who the NRC
13 holds responsible for all activities associated with
14 the license, period.

15 MR. STEPHENSON: Thank you.

16 FACILITATOR RAKOVAN: Thank you, Bob
17 Caldwell from the NRC.

18 MR. PARKER: Roy Parker.

19 FACILITATOR RAKOVAN: Please, Roy.

20 MR. PARKER: Repeating an earlier comment,
21 but please do not try to use the licensee,
22 carrier/shipper in other words, to de facto regulate
23 the carrier.

24 FACILITATOR RAKOVAN: Thanks, Roy.

25 MS. GIANTELLI: Thank you.

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1 FACILITATOR RAKOVAN: Any further reaction
2 to this question, or should we just go ahead and move
3 on to the next one?

4 (No audible response.)

5 FACILITATOR RAKOVAN: Okay, Adelaide.

6 MS. GIANTELLI: Okay. The next question
7 goes to Lee's comment earlier. And this isn't worded
8 quite correctly. Basically, what we're trying to find
9 out is what role, if any, should the agreement states
10 have in the regulation and security of transport of
11 radioactive materials in quantities of concern. We're
12 trying to find out what -- we're trying to pulse
13 everybody on what role, if any, should the agreement
14 states have in security regulations that affect the
15 transport of radioactive materials in quantities of
16 concern. And this goes to, basically, common defense
17 and security, versus public health and safety, and any
18 input you can give us on this would be appreciated.

19 FACILITATOR RAKOVAN: I know we had some
20 discussion about this earlier. Is there anyone who
21 wants to piggyback from those discussions?

22 MR. COX: Lee Cox representing OAS, and
23 also North Carolina.

24 FACILITATOR RAKOVAN: Try to speak into
25 the mic a little more, Lee. Sorry. We're losing you

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1 already.

2 MR. COX: The position from OAS will come
3 directly from the OAS board, and I'm sure you'll get
4 some comments from us on this point. But to go back
5 to my point earlier, is I think there also needs to be
6 a question of what is the criteria that gives -- that
7 puts it into one category of common defense and
8 security, or public health and safety? Can the NRC
9 develop such criteria? Have they looked at that? How
10 is that decision made? And then it may be easier to
11 answer this question based on what the criteria is for
12 making the decision, if it falls under one or the
13 other.

14 MS. GIANTELLI: Okay. Thank you. Oh, and
15 just for everybody's clarification, OAS is
16 Organization of Agreement States.

17 FACILITATOR RAKOVAN: Yes, I wasn't sure
18 if he said it or not. Thanks, Adelaide. Al.

19 MR. JACOBSON: Al Jacobson, State of
20 Maryland. I'll recommend that the NRC issues orders
21 to a specific licensee in an agreement state, the
22 agreement state program should be involved in the
23 inspection at that facility.

24 MS. GIANTELLI: Thank you.

25 MS. ROUGHAN: Kate Roughan, QSA Global.

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1 In terms of the agreement states, anything traveling,
2 like the mobile devices go from state to state, and
3 obviously cross state lines. Whatever is implemented
4 has to be consistent, and basically the same, whatever
5 those security arrangements may be. That's an
6 important thing to remember, because you can't have
7 varying requirements in the different states when
8 you're transporting the radioactive material.

9 MS. GIANTELLI: Thank you.

10 FACILITATOR RAKOVAN: Further discussion?

11 Susan, do you have a comment?

12 MS. BAGLEY: Okay. Can you just clarify?

13 So are you saying that we should be more prescriptive
14 in what we say, so that agreement states, or all
15 states prescribe the same thing, or that we should put
16 this under NRC authority only, so that agreement
17 states don't -- aren't able to? Is that what you're
18 giving us an opinion on?

19 MS. ROUGHAN: I think it would be best
20 under NRC only, so the requirements are the same in
21 every individual state, so there's no room for
22 interpretation and implementation differences.

23 FACILITATOR RAKOVAN: Lee.

24 MR. DAHLIN: This is Randy Dahlin with the
25 State of Iowa. I completely disagree with that

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1 statement. The agreement states and the NRC work
2 quite closely together to implement the original
3 requirements of the increased controls, which we
4 required all the states to implement everything across
5 the board, pretty much exactly the same. We haven't
6 had any problems with that.

7 We have long inspected our licensees for
8 transportation requirements for many, many years now,
9 including security requirements. Typically, and I'm
10 going to jump on the Roy Parker bandwagon here, we
11 inspect for transportation requirements under 49 CFR,
12 and not necessarily - there are some security
13 requirements in our rules, but typically, it's 49 CFR.

14 And even though we inspect our licensees, we have no
15 regulatory authority over carriers, so the NRC needs
16 to be very careful as to where these orders are
17 placed, how they implement them. But the State of
18 Iowa highly recommends public health and safety.

19 FACILITATOR RAKOVAN: Sir, if you could
20 give us your name again, please?

21 MR. DAHLIN: My name is Randy Dahlin, D as
22 in David, A-H-L-I-N, with the State of Iowa.

23 FACILITATOR RAKOVAN: Thank you, sir.
24 Lee, you had another comment?

25 MR. COX: Yes, just to follow-up with

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1 that. I would suggest that even if these orders did
2 fall under the NRC, based on how the licensees
3 interpreted those orders, there's a lot of wiggle room
4 on how they're implemented, so it may not be
5 consistent even if it is under the NRC orders, whether
6 or not it went with the agreement states, as well,
7 just because of interpretation. And I think the
8 orders are meant not to be so prescriptive that
9 licensees can choose to go about different ways of
10 meeting them.

11 MR. CALDWELL: This is Bob Caldwell.
12 First thing, I just want to make sure we're not
13 talking about orders, we're talking about change to 10
14 CFR. So this is going from where we are right now,
15 which doesn't include the orders, to some level of
16 security that is appropriate for our current post 9/11
17 environment. Thank you.

18 FACILITATOR RAKOVAN: Further discussion
19 on this topic? Looks like we'll hear from Lee Cox
20 again from North Carolina.

21 MR. COX: Yes. I just want to get
22 clarification on that. So are you saying that the
23 rules and whatever, 10 CFR, you propose to put these
24 in, that they'll be so prescriptive that we'll have --
25 -- you'll tell the licensees to use this lady's form

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1 of tracking, or some other form of tracking? Or is it
2 still going to be left up to the licensee to interpret
3 how to meet the rules?

4 MR. CALDWELL: This is Bob Caldwell.
5 We're not -- the Agency generally tries to provide
6 performance-based requirements in its rules, so the
7 orders came out, there were some prescriptive, some
8 performance-based, variety of things, but we're
9 looking at performance-based, as much as appropriate,
10 and actually, that's why we're here. We're trying to
11 get that information from you all. Do we need a
12 tracking device? I don't know. But let's not cut out
13 an appropriate tracking device by the way we write the
14 orders - excuse me, you got me going - the way we
15 write the regulations.

16 FACILITATOR RAKOVAN: That's easy to do.

17 MR. CALDWELL: Yes, it is. So that's what
18 we're looking at right now. Please provide us as much
19 information as possible. Some folks want very
20 prescriptive so that they don't feel that there's
21 interpretation differences. Some folks want it very
22 broad so that the licensees can use whatever method is
23 appropriate, they feel cost-effective. There's pluses
24 and minuses to each one, and that's what we're trying
25 to draw out, because we have to take that information,

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1 synthesize it, and then try to provide the Commission
2 a balance and a proper context to all the options.
3 There is no identified option yet. We want to provide
4 them proper context with the pluses and minuses to
5 each option, so that's where we're heading. So
6 please, more comments. Thank you.

7 MR. COX: Yes, I guess my -- this is Lee
8 again. My point was that the NRC has been typically
9 performance-based, which I think a lot of us agree
10 that that's a good thing. And that does allow for
11 some inconsistencies on how it's applied from licensee
12 to licensee, going back to the comment earlier that
13 the NRC -- if this fell under the NRC, there would be
14 more consistency. And that was my point, that the
15 agreement states just by -- if this fell under the
16 agreement state authority, doesn't mean that there
17 would be less consistency.

18 FACILITATOR RAKOVAN: Okay. Further
19 discussion on this topic?

20 MS. ROUGHAN: Yes. Kate Roughan from QSA
21 Global again, just to follow-up on my earlier comment.

22 I agree with Iowa to the respect that anything
23 transported, and the security issues. Those should be
24 codified under 49 CFR, and not NRC, and then you can
25 get the consistency in the states against that.

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1 FACILITATOR RAKOVAN: Okay. Thank you. I
2 guess let's go ahead and move on to the third
3 question.

4 MS. GIANTELLI: Okay. The third question
5 is based on a Petition for Rulemaking we received last
6 year from the State of Washington. The petition
7 requested that the NRC consider GPS tracking, or
8 Global Position Satellite tracking of all portable and
9 mobile devices. We granted the petition in that we
10 would consider it as part of this policy change,
11 whether or not we should require GPS tracking.

12 One of the things that -- which is a bit
13 contrary to the discussion we just had in terms of we
14 don't typically require a particular technology, but
15 instead, we do a performance-based criteria.

16 What this question is, the third question
17 is a straight survey question. And we're trying to
18 find out what technologies are being used to track
19 sources, packages, or vehicles carrying radioactive
20 materials in quantities of concern. We want to know
21 is it Global Position Satellites, is it radio
22 frequency indicating devices, just in general what the
23 technology is, not a particular brand or model, or
24 anything like that, just generally what the basis of
25 the technology.

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1 FACILITATOR RAKOVAN: And I think we
2 touched upon this earlier, and said that it was going
3 to be a topic to discuss later, so we'll throw it out
4 there to see if there's any discussion. Obviously,
5 we'd be more than happy to get this kind of
6 information written down, as well, and submitted after
7 the meeting. But is there any discussion on this
8 particular topic at this point?

9 MS. ROUGHAN: Kate Roughan, QSA Global.
10 My first question is, what's the intent for the
11 tracking? Is it supposed to be real-time tracking, or
12 is it just that you activate something in case you
13 cannot locate a package, or a vehicle?

14 MS. GIANTELLI: It could be either. It
15 really depends on the category of sources you're
16 dealing with.

17 MS. RASMUSSEN: This is Melanie Rasmusson
18 from the State of Iowa. I just want to clarify that
19 the tracking systems that you're talking about using
20 would be specifically on the devices, or the source,
21 put on there by the manufacturer, and not on the
22 truck, which could become displaced from the source.

23 MR. PARKER: This is Roy Parker.

24 MS. GIANTELLI: Okay.

25 MR. PARKER: Although, it's stated that

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1 the air transport is excluded from the proposed
2 policy, it must be recognized that the air transport
3 is integrated with ground transport. The package has
4 got to get to the air terminal by ground, and from the
5 air terminal by ground after it arrives. This impacts
6 a number of items, including the proposed GPS tracking
7 for mobile and portable devices, such as the moisture
8 and density gauges. As we all know, such gauges are
9 frequently transported by air. We also know that when
10 we're flying, we have to turn off our cell phones when
11 the entrance door closes.

12 All right. We have put a GPS device onto
13 a portable or moisture density gauge, say. Who's
14 going to turn off the GPS device when the portable
15 gauge arrives at the airport prior to flight? Who's
16 going to turn it back on when it departs the airport
17 after the flight? If GPS is involved in this sort of
18 thing, the air transport mode must be integrated with
19 it, and this is going to involve FAA approval for such
20 things as GPS active on board if there's not a
21 mechanism, which I could see as to be very difficult,
22 to turn it off and on.

23 MS. GIANELLI: Thank you. I think those
24 are very --

25 FACILITATOR RAKOVAN: Okay. Thanks. Yes.

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1 MS. GIANTELLI: Those are very good points
2 for us to consider. Thank you, Roy.

3 FACILITATOR RAKOVAN: We've got someone in
4 the audience here who wants to make a comment, please.

5 MS. OSOWITZ: Karen Osowitz, System
6 Planning Corporation. On the last point, yes, he's
7 right, it's very hard. We've been working on it for a
8 while, because we do intermodal tracking, and right
9 now we haven't found a way to consistently geo-zone
10 and turn-off GPS on runways. And we've got a test
11 going on this week in a foreign country where they're
12 going to look at equipment running around on runways,
13 but it's just because they don't have the rule about
14 turning off the GPS. It is a very hard issue.

15 What I wanted to say is that while our
16 device is particularly powerful, and far-ranging,
17 there are simpler devices out there which are doing
18 tracking. What we have looked at with our partner,
19 E.J. Brooks, who makes electronic seals and sells a
20 whole lot to Oak Ridge, is either for rail or truck,
21 and internationally, is being able to report the
22 status of the seal, the electronic seal that's on the
23 package 24/7 to anybody in the supply chain who needs
24 to know, and who has authority. That could be
25 government included, as well as intermediaries, like

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1 brokers, and folks like that, so I'll be happy to talk
2 to anybody who has questions.

3 The industry is burgeoning. We have a
4 very good and sophisticated system, and some very
5 smart partners, so it is possible to use technology to
6 do some of the tracking that you couldn't do two years
7 ago.

8 FACILITATOR RAKOVAN: Okay. I've got
9 another commentor here in the audience, if you could
10 introduce yourself, please.

11 MR. HADDOCK: Steve Haddock with Baker
12 Hughes in Houston. We're a well logging company for
13 oil and gas industry, and we have been using a test
14 system on some of our units. But along with the
15 concept of signals that Mr. Parker was mentioning on
16 the phone, at certain job locations we cannot
17 transmit signals due to possibly triggering
18 explosives, which are also used at well logging sites,
19 so that's something that would definitely need to be
20 considered in this process. Thank you.

21 MS. GIANTELLI: Again, thank you. Very
22 good point to bring up to us.

23 FACILITATOR RAKOVAN: Any further
24 discussion either here in the audience, or on the
25 phones?

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1 MS. ROUGHAN: Kate Roughan, QSA Global.
2 Again more of a question, initially. Is the intent
3 for the licensee to do the tracking, or will that be a
4 regulatory activity, a regulatory authority activity?

5 MS. GIANELLI: The intent at this point
6 is for the licensee to do the tracking.

7 MS. ROUGHAN: I know in Korea they
8 actually have implemented -- the regulatory authority
9 has implemented tracking of some models of the
10 radiography devices, and they -- the regulatory
11 authority monitors that real-time. And they've
12 actually given the device to the licensee.

13 MS. GIANELLI: So your recommendation is
14 that we consider the NRC take on the role of tracking?

15 MR. ROUGHAN: Well, I would take a look at
16 what Korea is doing. They're integrating several
17 different systems, cell phones that they do have
18 pretty much, not 100 percent coverage, but they do
19 have a lot of coverage. And it may be useful to look
20 at their program just to see how effective it is.
21 We're actually going over there in May to talk to them
22 about it, to see what could be done. I don't have all
23 the details at this point.

24 One of our concerns, from a manufacturing
25 standpoint, is that the sources in these devices,

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1 either oil well logging, or radiography, or medical,
2 tend to be physically small. The source itself may be
3 an inch or two. The attachments to manipulate it may
4 be another six or seven inches, so you'd have to have
5 something very tiny to install that and not interfere
6 with the operation of the device or the package that
7 it's being transported in. A lot of the packages
8 themselves are fairly small, eight to ten inches, and
9 the device that's going to be used for tracking is
10 going to have to be integrated into that device. The
11 effect of having it meet all the packaging tests, all
12 the operational tests, and then the cost of it is
13 going to have to be looked at very closely. So
14 there's a lot of different factors here that have to
15 be looked at from a technical standpoint before we can
16 go too much further on this one.

17 MS. GIANTELLI: Thank you.

18 MS. ROUGHAN: If you have some of the
19 sources in gauging don't cost all that much money, you
20 don't want to put a price on it where the tracking
21 device costs more than the actual source or device.
22 That's cost-prohibitive, and people won't be in the
23 business any more.

24 FACILITATOR RAKOVAN: Thank you. I've got
25 a commentor here in the audience. Please.

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1 MS. KEYES: Debbie Keyes with AMEC Earth &
2 Environmental. Kate answered several of my questions,
3 but, again, the object of this, is it going to be,
4 you're going to require us to watch this, or just
5 locate it when it's lost, because there's a big
6 difference there to a licensee in the cost, in hiring
7 somebody to effectively watch them on a screen as they
8 move, or just pull it up and locate it if it gets
9 lost. For a radiography company that has several
10 devices that are out there in the field, you'd have to
11 have somebody looking at it constantly, if you wanted
12 tracking continuously, rather than just locating a
13 device.

14 The other thing is, I couldn't find
15 information, and I tried, on how many radiography
16 devices have been lost or stolen in the last few
17 years. What I came up with was very few. I think a
18 lot of times you do a cost versus benefit analysis,
19 when you put a rule into effect. I think we might want
20 to look at the cost versus benefit on how many of
21 these devices we might be able to recover by putting
22 in a lot of cost. As Kate was explaining to you, the
23 whole thing has to be redone and retested in order to
24 put a device in there, so that might be something for
25 you to look at, also.

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1 MS. GIANTELLI: Thank you. So you're
2 asking us to consider the cases of lost or missing
3 sources, what -- whether or not a locating device
4 would have prevented it, or found it. Correct?

5 MS. KEYES: Well, whether -- if you look
6 at the amount of cameras that are out there, there are
7 thousands of cameras out there. If there was only one
8 device lost in the last three years, so if
9 retrofitting all of these cameras, or coming up with a
10 new model that we all have to purchase for \$9,000 a
11 piece, is going to get us one camera found over a
12 three-year period, the cost versus the benefit really
13 isn't there.

14 MS. GIANTELLI: Thank you. I understand
15 your comment now. Thank you.

16 MS. ROUGHAN: Kate Roughan from QSA
17 Global, again. Just to put this in perspective,
18 there's probably about five or six thousand
19 radiography devices out there, and another probably a
20 little bit less than that of oil well logging devices,
21 so there's a large number of devices and sources out
22 there that would perhaps fall into this category. And
23 we need to keep that in perspective as they move
24 forward.

25 FACILITATOR RAKOVAN: Okay. Thank you.

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1 MS. GIANTELLI: Thank you.

2 FACILITATOR RAKOVAN: We've got a comment
3 here in the audience.

4 MR. CHARRETTE: Mark-Andre Charrette, MDS
5 Nordion. Just a question for clarity. When we're
6 talking about location of sources, you're not talking
7 about the physical source itself, but the shielding
8 that the source is in. Is that what we're talking
9 about, or we're talking about trying to attach
10 something to the source itself?

11 MS. GIANTELLI: We are -- yes, to the
12 first part of your question. At this point in time,
13 we're not aware of any technology that can actually be
14 attached to a source itself, because the radiation
15 field just burns out that device. Most likely, we're
16 looking at either on the packaging, or on the
17 conveyance.

18 MR. CHARRETTE: So it's the location of
19 packages or vehicles.

20 MS. GIANTELLI: Yes.

21 MR. CHARRETTE: Not sources. Okay.

22 MS. GIANTELLI: Yes. But we are
23 constantly trying to figure out if the technology has
24 advanced enough that you could actually tag a source
25 itself.

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1 MR. CHARRETTE: Well, I don't know about
2 all the sources out in the market, but certainly the
3 source we manufacture, I don't see that in any near
4 future.

5 MS. GIANTELLI: Yes. Thank you.

6 FACILITATOR RAKOVAN: Further discussion
7 on this question, or any of the topics that we've
8 covered at the meeting today?

9 MR. POTTER: Jim Potter from ARINC
10 Engineering Services.

11 FACILITATOR RAKOVAN: Please.

12 MR. POTTER: Could you provide the website
13 where we could also go in and provide feedback to you?

14 FACILITATOR RAKOVAN: I believe that leads
15 delightfully into our next slide. Adelaide, do you
16 want to go ahead?

17 MS. GIANTELLI: Yes. The path forward
18 now. From these meetings and from the comments we
19 receive up until February 8th, 2008, we're going to use
20 this information to inform our technical basis, that's
21 the document that's going to point out which
22 regulations need to be revised, or added. That
23 technical basis is due Spring 2008. That technical
24 basis will be used to develop a draft proposed rule,
25 which is scheduled for Spring 2009, so next year.

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1 And, again, that will be publicly available. And
2 then, if everything goes well, publish the final
3 rulemaking in 2010.

4 Right now, we'll have all your comments
5 based on the transcripts, the ones that happened today
6 during the meeting will be in our transcripts. You
7 can also provide them on NRC Form 659, and that's that
8 meeting feedback form that you received on the way in.

9 You can also provide it by email to nrcprep@nrc.gov.
10 And the last way to send it is by U.S. mail to our
11 Chief of Rules and Directives Branch in the Division
12 of Administrative Services at the U.S. Nuclear
13 Regulatory Commission in Washington, D.C. So those
14 are the various modes that you can get comments to us.

15 FACILITATOR RAKOVAN: Any further
16 discussion on any of the issues that we touched upon
17 today before I hand things over to Bob to clean us
18 out. Yes?

19 MS. FAIROBENT: Lynne Fairobent with AAPM.
20 Since I believe that NRC is sincere in looking for
21 input from the user community, I find that giving 30
22 days, actually 34 days from the publication of the
23 Federal Register notice to when the comments are due
24 to be insufficient time for the industry to reflect,
25 especially that you've got less than two weeks after

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1 the conclusion of this meeting today. And I certainly
2 would request that NRC consider extending this, and
3 that you are going to take over a year from
4 development of the technical basis to the proposed
5 rule. Once again, you're short-changing the industry
6 in having ample opportunity to reflect upon the
7 issues.

8 MS. GIANTELLI: I think that's a fair
9 comment, and we will -- I guess I shouldn't have
10 mentioned the February 8th date as a complete drop-dead
11 date. February 8th, if we get your comments by
12 February 8th, they will be considered as part of the
13 technical basis. Anything we receive after February
14 8th we will try to take into consideration as best we
15 can, but we can't guarantee that it will make it into
16 the basis. But there will be --

17 MS. ROUGHAN: Kate Roughan --

18 MS. GIANTELLI: Oh, I'm sorry. There will
19 be also a second opportunity to comment next year when
20 the draft proposed rule comes out, as well. So this
21 isn't the last opportunity to comment on this policy
22 change.

23 FACILITATOR RAKOVAN: I've got someone in
24 the audience, and then we'll go to the phones. Mary?

25 MS. HORN: Yes. This is Merri Horn. I'm

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1 actually in Rulemaking Group at the NRC. And while
2 they may not be able to accept and consider your
3 comments in the technical basis, if you make them
4 after that date, we certainly will consider them in
5 the development of the proposed rule.

6 FACILITATOR RAKOVAN: Thanks, Mary.

7 MS. GIANTELLI: Thanks, Mary.

8 FACILITATOR RAKOVAN: We had a comment
9 coming from the phone, please.

10 MS. ROUGHAN: Yes. Kate Roughan, QSA
11 Global. Speaking on behalf of the Nuclear Center
12 Coordinating Council, I strongly recommend that NRC
13 engage them in the technical basis document, because
14 the industry can provide valuable comments on how to
15 effectively implement some of these requirements if
16 they do go forward, and where the difficulties are
17 going to be. I mean, we're all trying to meet the
18 same intent, but you do really do need to get the
19 industry involved, so I strongly recommend you engage
20 the Nuclear Center Coordinating Council,
21 Radioisotopes. We have a lot of good information as
22 to how to implement these regs, what we've had
23 problems with in the past. I think that will make a
24 much more effective regulation in the end.

25 MS. GIANTELLI: Thank you. We do have our

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1 management, our representatives on the Partnering
2 Government Coordinating Council of the one you're
3 talking about. So, yes, we will take that into
4 consideration.

5 MS. ROUGHAN: But will there be direct
6 stakeholder involvement in the development of that
7 technical basis document?

8 MS. GIANTELLI: Yes, through this process,
9 and we can -- yes.

10 MS. ROUGHAN: Okay. Thank you.

11 MR. PARKER: This is Roy Parker. I'd like
12 to make a couple of final summarizing comments that
13 were not covered. The first is, a RAMQC is based upon
14 specific radionuclides and activities. This process
15 is not compatible to carrier operations, because once
16 a package is accepted for transported, the loading and
17 handling is performed based upon labels and markings
18 applied to the packages by the shippers, and by
19 shipping paper entries which are entered by the
20 shipper.

21 Second comment is the common carrier
22 cannot implement various levels of security within its
23 system. This can only be done by specialized carriers
24 that would be set up for that. And that gets us down
25 to the consequences from the carrier's viewpoint. The

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1 implementation without coordination with carriers will
2 likely result in the embargo of RAMQC, and possibly
3 all radioactive material shipments by other
4 specialized carriers.

5 Radioactive materials are shipments which
6 are time-sensitive, and this would have a negative
7 impact and effect on industry, and especially the
8 medical community, as well as to impede commerce.
9 And, lastly, specialized carriers do not serve many
10 markets domestically, or internationally. There would
11 be a decrease in the reliability of service, plus a
12 likely significant cost increase. Thank you.

13 MS. GIANTELLI: Thank you.

14 FACILITATOR RAKOVAN: Any further
15 discussion before I turn things over to Bob to close
16 us out?

17 (No audible response.)

18 FACILITATOR RAKOVAN: Okay. Bob.

19 MR. CALDWELL: Well, first off, thank you
20 very much for coming. As I said at the beginning, we
21 consider this a very important process, and we do want
22 to get -- do this regulation right. And the only way
23 we're going to be able to do that is by your input.

24 One thing, Rick, I do understand what
25 you're talking about with regards to sabotage from the

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1 goals. There's still a lot of work left on that.
2 We're working on that. That's not part of this
3 particular scope at the moment.

4 One of the items that I've talked with the
5 other -- at the other two public meetings is that we
6 are very sincere about getting your feedback. And one
7 thing I've recommended, we purposely went through
8 this, and we broke it up into seven different
9 categories, and we broke it into the various items,
10 line items under each one of these seven categories.
11 I encourage you to take a look at that, line out the
12 items that you don't think apply, put in the ones that
13 you do, and provide me, or provide us some sort of
14 ideas of the pluses and minuses of what's good and
15 what's bad about it. We're looking for your
16 information. We want to do it right. We want to make
17 sure that we give the Commission appropriate context,
18 as well as what are going to be the pluses or the
19 minuses.

20 It was mentioned we do cost-based. Well,
21 there is a regulatory analysis with the way we do
22 rulemaking, and it does look at the cost benefit. And
23 the more information we get from you all with regards
24 to what are the actual costs, what are the actual ways
25 that it impacts business, the better that regulatory

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1 analysis is going to be.

2 I don't know that this is unique in the
3 way the NRC is doing business, but we are interacting
4 with the stakeholders, i.e., you, early in this
5 process. And, so, right now I can say that this
6 process, and whatever we get out of it, is going to be
7 directly the result of how much effort you all put in
8 to giving us information. The more information you
9 give us, the better it will be.

10 We will take your comments. We're going
11 to look at them hard, we're going to take them in the
12 spirit they are given as trying to make the
13 regulations better. So, please, as you go back to
14 your offices, you go back to your homes, or whatever,
15 take a look at the documents, and provide us as much
16 comments as you possibly can.

17 And I really appreciate you all coming
18 here, and taking the time on this subject. We've been
19 here for almost three hours. It's a long time for a
20 meeting, but we greatly appreciate it. Thank you.

21 (Whereupon, the proceedings went off the
22 record at 4:21:03 p.m.)

23
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