

Official Transcript of Proceedings
NUCLEAR REGULATORY COMMISSION

Title: Development of a Technical Basis
for Transportation of Radioactive
Materials in Quantities of Concern

Docket Number: (n/a)

Location: Lisle, Illinois

Date: Tuesday, January 15, 2008

Work Order No.: NRC-1958

Pages 1-99

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UNITED STATES OF AMERICA

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NUCLEAR REGULATORY COMMISSION

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Regarding the Development of a Technical Basis
for Transportation of Radioactive Materials
in Quantities of Concern

+ + + + +

TUESDAY,

JANUARY 15, 2008

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2443 WARRENVILLE ROAD

LISLE, ILLINOIS

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The above-entitled matter commenced pursuant to
Notice at the hour of 12:30 o'clock p.m.

PRESENT:

NRC STAFF:

Robert Caldwell - Branch Chief

Adelaide Giantelli - Team Leader

Susan Bagley - Transportation Security Specialist

Gary Purdy - Sr. Health Physicist

Lance Rakovan - Meeting Facilitator

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

(12:32 P.M.)

1
2
3 MR. RAKOVAN: Hi, my name is Lance
4 Rakovan. I am a Communications Assistant at the NRC
5 and I'd like to welcome you all to today's public
6 meeting.

7 You're probably wondering why I'm speaking
8 into a microphone considering we're all in a small
9 room and you can all hear me without the use of it,
10 but the reason is that we are transcribing today's
11 meeting. So one of the things that we're going to be
12 asking is that if you have any comments or questions
13 when we get to that point in things, that you come up
14 and speak into the microphone so we make sure that we
15 have a clear transcription of the meeting.

16 Again, I'd like to welcome you to the
17 meeting today. The reason that we're here today is to
18 discuss Enhancing Security During Transport of
19 Radioactive Materials in Quantities of Concern. Just
20 to give you an idea of what to expect today, we've got
21 a few presentations that we're going to give. And for
22 the first few presentations, we're going to ask that
23 you hold your questions or your comments until we're
24 done with the presentation so we can get the
25 information out there. At that point, I'll step up

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1 and then ask specifically if there's any questions or
2 comments.

3 As we go along, though, we're going to
4 reach a section in the presentations where we're going
5 to be going through maybe a slide or two at a time and
6 specifically asking if there's any questions or
7 comments on specific topics that are to those specific
8 slides.

9 So once we get to that part, it should be
10 fairly obvious. I believe Susan will be speaking at
11 that point and she's going to open it up, like I said,
12 after a slide or two depending on how long the topic
13 takes to discuss and asking if there's any questions
14 or comments right at that time. So you'll see that
15 change once we get there.

16 Our speakers today, and we have them
17 sitting at the table, first Bob Caldwell, if you could
18 raise your hand or say hi. He is the Chief of the
19 Fuel Cycle and Transportation Security Branch at the
20 NRC. Adelaide Giantelli, she is the Team Leader for
21 Transportation Security. Susan Bagley, is a
22 Transportation Security Specialist. And finally, at
23 the end we have Gary Purdy, who is our Senior Health
24 Physicist.

25 Now again, we're trying to keep a

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1 transcript of today so even though we're in a small
2 room, it helps if you could use the microphone
3 whenever you make comments or have a question, or if
4 you could make sure that you keep side conversations
5 down to a minimum to keep noise down to a minimum.
6 We're going to be discussing only public information
7 during this meeting, so we're not going to go into
8 anything beyond that. Given the amount of people we
9 have here, we shouldn't have any problems if everybody
10 wants to make a comment or a couple comments, but
11 we'll have to see depending on how we manage time.
12 Hopefully, everyone will have a chance to speak if
13 they so desire.

14 And again, simple things, just remember
15 we're not necessarily here to agree with each other.
16 We're just here to get some information, convey some
17 information and discuss. So if somebody has a
18 different opinion than you, let's just agree to get
19 along.

20 Just a few simple start out meeting
21 things, if everyone could silence their cell phones or
22 anything else electronic that could make noise or
23 otherwise disrupt the meeting, that would help us out
24 a lot. Hopefully when you came in and signed in you
25 got a copy of the slides and also a Public Meeting

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1 Feedback Form. If you didn't get a copy of the
2 slides, if you raise your hand I can run out and get
3 you before we start the meeting and I can get you a
4 copy.

5 The Public Meeting Feedback Form is just
6 something that we use that you can fill out, either
7 give to one of us NRC staff or you can drop in the
8 mail. Postage is free. It give us an idea of what
9 you thought of the meeting, maybe some suggestions on
10 how we can do things better in the future, and it
11 really does help us out if you could fill that out.
12 So we'd appreciate that.

13 For those of you who don't know, the
14 restrooms are back the way you came, past the
15 elevators and then they'll be on your right. I think
16 the men's is first and then the women's is after that.
17 So if you need to use those, that's where they are.
18 We do have a couple of scheduled breaks in the course
19 of the meeting, so we'll try to make sure that we
20 stick to that to give you a chance to stretch your
21 legs and not miss anything.

22 Other than that, I'd like to thank you in
23 advance for helping me make this meeting productive
24 and I'll turn things over to Bob who's going to kind
25 of kick things off for real.

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1 MR. CALDWELL: First of all, thank you
2 very much for coming. We really appreciate it. We're
3 here just mainly really to gather information. We'll
4 go through a leaking and show you basically where we
5 started at, where we're, give us some framework for
6 the discussion.

7 One thing I want to start off with is that
8 this is, we have regulations in place, we have orders
9 in place, we've done a variety of things. But we're
10 here to get the regulations to where we think they
11 need to be and we need you, the public, the
12 stakeholders to get us to where we're at. Although we
13 have done things since 9/11, we don't have the end
14 product in mind at the moment. Everything is on the
15 table. We want to get everybody's opinion. We want
16 to get not just your opinion and your conclusion, but
17 we also want to get the basis for that. The more
18 insights we have, the better product we'll be able to
19 get because we'll have a better way of trying to put
20 all the pieces together as we go through the process.
21 This is the initial, this is the beginning. We do not
22 have an end product in mind. We are looking for your
23 input to get us to where we need to go.

24 Other than that I'd like to say let's just
25 go and get started. We've got a little bit of

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1 information to get through. Adelaide is going to lead
2 us off and we'll start from there. Thank you.

3 MS. GIANTELLI: Good afternoon everybody.
4 I'm Adelaide Giantelli. I'm a Team Leader for
5 Transportation Security at the NRC and I do appreciate
6 everybody taking time to be here today.

7 We're here today to discuss NRC's plans to
8 increase security during transportation of radioactive
9 materials in quantities of concern. My presentation
10 is going to focus on some background information to
11 help explain the security requirements that you'll
12 hear about in the second part of this meeting, the
13 one's that Susan will go through.

14 First my discussion is going to talk about
15 the NRC's authority, where it comes from, how we
16 regulate, how we interact with both our state and
17 federal partners to insure the safety and security of
18 radioactive material during transport. Next I'm going
19 to talk about some of the uses of the radioactive
20 materials. The types of radioactive materials we're
21 talking about today are primarily used in medical,
22 academic and industrial applications. To a lesser
23 extent, these materials are also used, are also in the
24 waste streams of nuclear power plants.

25 Finally, I'll also discuss a term that we

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1 keep using, radioactive materials in quantities of
2 concern. I'll explain where it came from, what it is
3 and what we're doing at NRC since the events of
4 September 11th to improve security during transport of
5 this category of materials. And throughout all this,
6 I'll try to keep reminding everybody why we're here
7 today, how we are interested in keeping our
8 communications open and gathering everybody's input on
9 this very important topic.

10 The NRC doesn't regulate transportation
11 security of radioactive materials alone. We share
12 this responsibility with the Department of
13 Transportation, the Department of Homeland Security
14 and our state and federal governments. In general,
15 NRC is responsible for regulating the licensees, which
16 are the shippers or receivers of radioactive
17 materials. Those are the entities that are authorized
18 to possess the materials and also authorized to
19 transfer to another entity that's authorized to
20 possess the material.

21 I wanted to point out that DOT is in
22 charge of regulating carriage, the commercial carriers
23 that actually physically move the material from point
24 A to point B. And, oh, I have to go back. It's not
25 just the Department of Transportation. It's also

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1 Department of Homeland Security that has authority in
2 that area. This is important to note because when we
3 get to the actual security enhancements, you're going
4 to notice that the requirements that we're proposing
5 are being put in place on NRC licensees and not on the
6 commercial carriers of radioactive materials.

7 Our authority, where does it come from?
8 The Atomic Energy Act of 1954, as amended, gives the
9 NRC its authority to license and regulate civilian
10 uses of radioactive materials. In addition, the law
11 requires us to insure adequate protection for the
12 public health and safety and to promote the common
13 defense and security and protect the environment. The
14 law give us authority to regulate civilian uses of
15 radioactive material, which means our role is not to
16 promote the use of radioactive materials, but instead
17 our responsibility is to insure that the material is
18 used safely and securely.

19 First we regulate civilian use of
20 radioactive materials by the issuance of licenses.
21 Licenses are the authorization given to the company or
22 the individual or entity to possess, use and transfer
23 the radioactive material. Besides the issuance of a
24 license, the law gives us mechanisms to put in place
25 requirements to insure that the radioactive material

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1 is handled safely and securely. One process that we
2 use is issuing an order. An order is a way that we
3 issue requirements that are basically effective
4 immediately. An order modifies the license to
5 possess, use and transfer radioactive material.

6 And one important thing to note, an order
7 does not involve the public in our process. In the
8 area of transportation security, excuse me, and I'll
9 discuss this more in some later slides, the staff
10 identified areas where transportation security could
11 be improved. We issued orders to companies
12 transporting radioactive materials in quantities of
13 concern to put in place additional security measures.
14 These orders were issued in 2003, 2004 and 2005.

15 But what I'd like to point out is that
16 imposing requirements by orders is not something we do
17 easily at NRC. The security orders issued in the
18 areas of transportation security were not, that
19 decision was not made at the staff level. That
20 decision was made by our commission.

21 Besides the orders, the NRC sets standards
22 and requirements in the form of rules. The rule
23 making process is a public process. It's
24 deliberative. The process allows time for us to
25 gather everyone's input and take into consideration,

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1 take that all into consideration before making a final
2 decision. That's why we're here today. We're here
3 today to discuss the NRC's plans to enhance security
4 during the transport of radioactive materials in
5 quantities of concern and this public meeting is a
6 first step towards gathering the information and
7 keeping our lines of communication open.

8 Okay, I'm going to go a little bit more
9 into some of the agreements we have in place. As I
10 mentioned earlier, the law give us authority to
11 regulate civilian uses of radioactive material. The
12 term civilian uses covers many different types of
13 radioactive material, but today we are focusing
14 primarily on radioactive material used by the medical,
15 academic and industrial community. And again, like I
16 said, to a lesser extent we're referring to waste
17 streams that come from a nuclear power plant.

18 There's another part of the Atomic Energy
19 Act. The Atomic Energy Act also gives the NRC the
20 authority to enter into what we call agreements with
21 the states. And I'm going to read this from the
22 slide, NRC relinquishes to the states portions of its
23 regulatory authority to license and regulate specific
24 types of radioactive materials. I'm going to break
25 that down into its pieces and focus on portions of

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1 that statement.

2 The last part says specific types of
3 radioactive material, and I'm sure you're wondering
4 what specific types of radioactive material. We call
5 it byproduct material, but in a nutshell it's medical,
6 academic and research of industrial uses of
7 radioactive material. It doesn't apply to nuclear
8 power plants.

9 Now the first part of the sentence, NRC
10 relinquishes to the states, and that means we
11 effectively create a partnership with the state. We
12 give our authority to regulate medical, academic and
13 industrial uses of radioactive material within a state
14 to the state. In this case, the state informs us of
15 their decision to regulate radioactive material. They
16 stand up a program, we review their program and if
17 it's compatible with the NRC requirements, we then
18 relinquish our authority to the state. We also
19 periodically review the state programs to insure that
20 they are remaining compatible with the NRC
21 requirements.

22 Once we've relinquished our authority, the
23 state is the authority over the material within their
24 jurisdiction. Today we have 34 states that are
25 entered into agreements with the NRC and others are

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1 being evaluated. And actually, the commonwealth of
2 Pennsylvania will be coming on in the near future.

3 Okay, going back to that original
4 statement, what do we mean that we relinquish to the
5 state portions of our regulatory authority. The
6 Atomic Energy Act only allows us to relinquish
7 authority to protect public health and safety. We
8 cannot relinquish our authority, our responsibility to
9 promote the common defense and security.

10 As I said earlier, the NRC can enter into
11 an agreement with a state and relinquish its authority
12 over byproduct material and give that responsibility
13 to protect public health and safety to the state. The
14 agreement states it has the primary authority to
15 regulate, inspect and take enforcement actions against
16 licensees within its respective jurisdiction.
17 However, the NRC as a federal agency cannot relinquish
18 its responsibility to promote the common defense and
19 security of the nation. That responsibility to
20 promote the common defense and security belongs to the
21 federal government.

22 In this case, for transportation security
23 the NRC would regulate, inspect and take enforcement
24 actions against licensees within state jurisdictions.
25 I'm harping on this because at the end of this

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1 discussion, we'd like to gather your comments about
2 how much involvement, if any, should the states have
3 in the enforcement of the transportation security
4 regulations.

5 I'm going to discuss now NRC actions since
6 9/11. Immediately after 9/11, the NRC issued security
7 advisories. In general, the security advisories are
8 non-public communications between the NRC and its
9 licensees that provide information from the
10 intelligence community or from local law enforcement.
11 And these advisories include changes to the threat
12 environment and provide recommendations to licensees
13 to take some specific action promptly.

14 We issued several security advisories
15 after 9/11 and those advisories recommended security
16 enhancements during transport of radioactive materials
17 in quantities of concern. In general, the license
18 community understood the change in the threat
19 environment and implemented the requested security
20 measures. But I'm going to note that these advisories
21 are not legally binding, and what I mean by that is
22 the NRC can't compel compliance with a requirement in
23 an advisory.

24 So once the advisories were in place, the
25 NRC issued orders. We issued orders to licensees in

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1 2003, 2004 and 2005 and these orders enhanced security
2 on transportation of radioactive materials in
3 quantities of concern. And at this point I'd be
4 asking why so many orders. The reason is that we use
5 the risk informed approach when issuing the orders.

6 There were a lot of security activities
7 going on at NRC after the events of 9/11 and, I'm
8 simplifying this, but in essence it was a graded
9 approach that we took when issuing orders. We took
10 the most risk significant radioactive material and
11 issued requirements to them first. By 2005,
12 essentially every licensee transporting radioactive
13 materials in quantities of concern received an order.

14 At the end of the process, more than 2000
15 licensees actually received orders. I should say,
16 excuse me, 2000 agreements, state and NRC licensees
17 received orders.

18 So now I'm going to go back to why we're
19 here today. It appears that, you know, we have these
20 orders in place. They can stay in place indefinitely
21 so why are we here. As Bob said, it's time to put in
22 place requirements that everyone has a say in. That's
23 our process to insure that everyone gets a chance to
24 provide their comment and help inform the regulations.

25 We're at the beginning stage of informing

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1 our regulations. Right now we're at the step of
2 developing what we call a technical basis. This
3 basically identifies what the staff wants to change or
4 add to the regulations. To start the discussion
5 today, we're using the security concepts from the
6 advisories and the orders as a basis. Some of the
7 advisories and the orders contain sensitive
8 information and are not publically available, but the
9 general security concepts of all these documents can
10 be used to start our discussions. So today and for
11 the next few weeks, we'll gather your comments on this
12 proposed policy change.

13 Now I'm going to change gears a little bit
14 and discuss some of the medical, academic and
15 industrial uses of radioactive materials. And again,
16 I'm going to repeat the NRC's role is not to promote
17 radioactive material but to insure that the material
18 is handled safely and securely.

19 These are some photographs of medical uses
20 of radioactive material. The smaller photo is a
21 photograph of an older style teletherapy unit. Its
22 use is being replaced by other newer techniques, but
23 it's still used at some medical institutions and it is
24 commonly used outside the United States.

25 The larger photo is what's called a gamma

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1 knife teletherapy unit. These units focus beams of
2 radiation to a specific site within the brain. It's
3 used for cancers and other conditions where the
4 location of the tumor is not reachable by surgery or
5 surgery would be considered too invasive.

6 Another medical use of radioactive
7 material is in the area of blood irradiation. This is
8 used for individuals with weakened immune systems. If
9 someone with a weakened immune system needs a blood
10 transfusion, the donor blood is irradiated to destroy
11 its antibodies. This prevents the donor blood from
12 attack in the recipient.

13 Industrial uses of radioactive material,
14 does anybody have a laser pointer or if Gary could
15 stand and point out?

16 Thank you, Gary.

17 MR. PURDY: Where do you want to start?

18 MS. GIANTELLI: Okay, this is a schematic
19 of a large industrial irradiator that sterilizes
20 medical equipment. Medical equipment in its final
21 shipping configuration is placed in a container onto
22 a conveyor belt and is passed on the conveyor belt,
23 through the facility and through the irradiator. The
24 strength of the field and the length of the time that
25 it's left in the radiation field result in

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1 sterilization of the equipment. Then the sterilized
2 equipment is shipped to the hospital medical facility
3 that plans to use it.

4 And I just want to point out, this is
5 another area where NRC shares responsibility with
6 another federal entity. We provide the license for
7 possessing and using radioactive material. We also
8 insure that the material is used safely and securely,
9 but the approval of the sterilization process itself
10 is given by the Food & Drug Administration.

11 We lost a slide. Does everybody have
12 slide 14 in their handouts? Okay, I'm going to talk
13 to slide 14. Another area where radioactive material
14 could be used is in research and industrial settings.
15 The upper left-hand photo is a caesium-137 irradiator
16 which is used for research purposes. The lower
17 photograph is of a radiography camera.

18 Radiography cameras are used to check the
19 integrity of welds. Welds are everywhere. They're in
20 piping systems, submarines, bridge, buildings, that's
21 just to name a few. Everyone expects welds to hold up
22 so during the fabrication process an x-ray is taken of
23 the weld to insure there isn't a defect. In general,
24 the shielded radioactive source is placed on one side
25 of the weld and the radiographic film is placed on the

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1 other side. After the correct safety precautions are
2 taken, the source is unshielded for a set amount of
3 time which exposes the film.

4 I think everybody has seen an x-ray of a
5 broken bone. The concept is the same for checking a
6 weld. And after the process, you end up with an x-ray
7 of that weld and somebody trained in reading that x-
8 ray of the weld reads it. And if the weld is fine,
9 the fabrication process moves on. If there's a defect
10 in the weld, then it's corrected.

11 Then the last photo in the upper right-
12 hand corner is of a fixed gauge. Those gauges shown
13 in that picture are at processing facilities and those
14 are used to detect flow inside the pipe. Underneath
15 the photo it says aggregate quantities. A single one
16 of these gauges is not considered a quantity of
17 concern, but when you aggregate them you could have a
18 quantity of concern.

19 What is RAMQC? I have spent some time
20 giving you some background information on what we do
21 at NRC. I'm also giving some information on the
22 medical, industrial and academic uses of radioactive
23 materials. But today's discussion is about keeping
24 radioactive materials in quantities of concern secure
25 during transport.

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1 So what is RAMQC?

2 RAMQC is our acronym for radioactive
3 materials in quantities of concern. There are
4 hundreds of radioactive materials that exist, but
5 RAMQC specifically refers to 16 radioactive materials,
6 and I'll discuss this in a little bit greater detail
7 in the next slide, but these are specific radioactive
8 materials that are commonly used in medical, academic
9 and industrial settings and that someone can use with
10 intent for something malicious.

11 One thing I also want to emphasize, when
12 we're talking about RAMQC we are not talking about
13 spent nuclear fuel. Spent nuclear fuel is considered
14 a separate category of material. Okay, a little bit
15 more of the history.

16 Prior to September 11th, 2001, the NRC's
17 focus was on safety and security of the people and
18 environment by protecting them from the inadvertent or
19 accidental release of radioactive material. The
20 attacks of 2001 led the NRC and the Department of
21 Energy to rethink how far someone would go to hurt the
22 public and perhaps even using medical and industrial
23 radioactive materials to cause harm.

24 As part of the process, the NRC reviewed
25 the chemical, physical and radiological

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1 characteristics of each radioactive material. The NRC
2 also joined with the international community to look
3 at these same materials with this as its main
4 consideration. That effort was led by the
5 International Atomic Energy Agency with active
6 participation by the NRC. The international effort
7 identified 16 commonly used radioactive materials that
8 could pose a serious threat to the people and the
9 environment in the wrong hands.

10 This effort further identified the
11 quantities or thresholds of materials that could be
12 useful to someone planning a malicious act. The IAEA
13 published these results in a document called the Code
14 of Conduct on the Safety and Security of Radioactive
15 Sources, and a link to that document is on our
16 website.

17 These are the 16 commonly used radioactive
18 materials and their associated threshold limits. It's
19 also on one of the posters --

20 MS. BAGLEY: Down here on the end.

21 MS. GIANTELLI: -- down there. One thing
22 I want to point out is Category 1 quantities are 100
23 times greater than Category 2 quantities. So if you
24 think about it in terms of a gallon of paint, one
25 gallon of paint would be a Category 2 quantity. If

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1 you had 100 gallons or basically about two 55 gallon
2 drums worth, you'd have a Category 1 quantity of
3 material.

4 I've mentioned the orders that were issued
5 after September 11th. In the area of transportation
6 security, we issued four orders that affected
7 transportation security of radioactive materials in
8 quantities of concern, and you can see them listed
9 here. We issued to large panoramic irradiator
10 licensees, manufacturing and distributor licensees,
11 transporters of radioactive materials in quantities of
12 concern and other materials licensees.

13 The NRC values the public involvement in
14 our process and we are committed to keeping the public
15 informed as well. By its nature, our rule making
16 process is deliberative and takes time. The process
17 has now started and our first step is to prepare the
18 technical basis, and I'm going to repeat what the
19 technical basis is. It's the document that identifies
20 the regulation that the staff believes needs to be
21 revised or it needs new requirements. All the
22 information gathered during these meetings and from
23 the written comments that are sent to our web address,
24 will be considered as part of the technical basis.

25 Once the technical basis is complete, it

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1 goes through all sorts of review within the NRC. It's
2 going to be used to prepare a draft proposed rule.
3 That draft proposed rule will identify language that
4 will be put into our regulations. Again, that
5 document is going to go through all sorts of reviews
6 within the NRC and it will even go up to our
7 commission for approval.

8 Once the commission approves the draft
9 proposed rule, it will get published in the Federal
10 Register notice and we will publish it for comment in
11 the Federal Register. We will gather public comment
12 and disposition every comment at that point as well,
13 and those comments will be used to inform the final
14 rule. Again, the final rule that gets written will go
15 through all sorts of NRC review and it will, again, go
16 up to the commission for approval.

17 After the public comments are resolved and
18 the commission has given its approval, the final rule
19 will be published in the Federal Register and it will
20 most likely be effective 30 days after publishing.

21 Right now the technical phase has been
22 scheduled for completion this spring, 2008. The
23 comments that we receive at these meetings and written
24 to us will be responded to on our public website. The
25 draft proposed rule is scheduled for completion the

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1 spring of 2009 and the new rule is expected to be
2 published in 2010.

3 And that completes my portion of the
4 presentation.

5 MR. RAKOVAN: Thanks, Adelaide. We wanted
6 to kind of open the floor up at this point to see if
7 there's any comments or any questions on Adelaide's
8 presentation. Once we've had a chance to do that, if
9 there are any, we'll take a short break and then we'll
10 go ahead and move on to Susan, who is going to talk
11 about the actual requirements that we're thinking
12 about putting in and we can talk about those more
13 specifically.

14 But did anybody have any questions or
15 comments at this point over the kind of background
16 material that Adelaide went over? Okay, and
17 unfortunately in order to get the transcript, I'm
18 going to have to ask you to come over here and speak
19 into the microphone that doesn't actually amplify
20 anyone's voice. If you could identify yourself and
21 let us know who you're with, if appropriate.

22 MR. DORUFF: My name is Mark Doruff. I'm
23 here on behalf of the Council of Radionuclides and
24 Radiopharmaceuticals, otherwise known as CORAR. Also
25 here on behalf of the Nuclear Sector Coordinating

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1 Council. It's a group of stakeholders that has been
2 working actively with the Department of Homeland
3 Security and the government coordinating council and
4 the efforts to provide stakeholder input on the sector
5 specific plans to protect the nuclear infrastructure.

6 One of the things I think should have been
7 pointed out is in the history of activities post 9/11
8 is the fact that the Department of Transportation has
9 enacted regulations in accordance with HM232 regarding
10 the transportation of radioactive material. And I
11 think that everyone should understand that there are
12 already some fairly significant requirements in place
13 for both shippers and carriers to enhance security of
14 radioactive materials and they apply to quantities of
15 material that are even less than Category 1 and 2 in
16 IAEA.

17 Secondly, reflecting on our experiences
18 within the Nuclear Sector Coordinating Council,
19 Radionuclides Subsector, we have been actively engaged
20 with Department of Homeland Security and the
21 Government Coordinating Council in providing
22 stakeholder input representing a wide variety of
23 applications. Many of those include the things that
24 we talked about earlier, medical, industrial and
25 research.

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1 And we have repeatedly expressed the need
2 for the Department of Homeland Security as well as the
3 Department, I'm sorry, the Nuclear Regulatory
4 Commission to work in a coordinated effort to insure
5 that the agencies are working together to provide
6 regulations consistent with the IAEA code and guidance
7 so that we don't have conflicting requirements,
8 duplication of effort and we don't deplete the already
9 limited resources we have both in the private and
10 public sector.

11 So we really encourage the GCC to get some
12 traction on our recommendations to seek a coordinated
13 effort in regulations concerning security of
14 radioactive material and their transport.

15 I think that's all I have to say at this
16 point. Thanks.

17 MR. RAKOVAN: Thank you, sir. Yes?

18 MS. GIANTELLI: Can I just say --

19 MR. RAKOVAN: Yes, sure.

20 Adelaide?

21 MS. GIANTELLI: I just want to say thanks
22 for that comment and we do understand that concern.
23 And we do have the same goal of insuring that our
24 regulations are working together with those put in
25 place by DOT and the DHS.

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1 MR. RAKOVAN: If you could please
2 introduce yourself.

3 MR. KILLAR: I'm Felix Killar with the
4 Nuclear Energy Institute. Just two things to build on
5 a little bit what Mark said. I am disappointed that
6 the Department of Transportation is not here because
7 it is a shared responsibility and as the NRC goes
8 forward to regulations, they need to make also, take
9 into consideration the Department of Transportation's
10 regulations for hazardous materials to insure that we
11 have consistency across the board for the regulations
12 of hazardous material, including Class 7 radioactive
13 materials.

14 The other thing I wanted to clarify is
15 that you indicated in your presentation, Adelaide,
16 that it applies primarily for the non-reactors.
17 However, the reactors do ship a number of materials
18 that are radioactive materials of concern and actually
19 they're having some of the issues because of the way
20 your regulations are written compared to the way the
21 Department of Transportation's regulations are
22 written. And so we need to address those concerns.

23 MS. GIANTELLI: Again, Felix, I would say
24 we understand that and we do realize that there are
25 some discrepancies between our requirements and the

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1 DOT and we are working together to, you know, the goal
2 is to have requirements that work together and not
3 against one another.

4 MR. CALDWELL: Yes, there's going to be
5 another stakeholder meeting.

6 MS. GIANTELLI: Oh, yes, and the
7 Department of Transportation is planning to come to
8 the stakeholder meeting in Washington, D.C. as well as
9 Department of Homeland Security Transportation
10 Security Administration.

11 MR. CALDWELL: As part of this effort we
12 went out and touched base with every stakeholder that
13 we thought had an important piece, and that included
14 the other federal regulators that are involved in
15 this. So we are involved with the GCC. My boss is
16 routinely in on that and the other, we routinely talk
17 with the Department of Transportation, the TSA,
18 whoever else we need to talk to.

19 But again, we're starting at the ground
20 floor here. We're starting with the regulations that
21 you can read in the 10 CFR right now, and that's not
22 necessarily, and that's not just what's being done out
23 there right now. So we're going forward starting with
24 the regulations and building a technical basis of
25 which you could say the framework of the orders is

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1 something we can think about, but we're going to build
2 from the regulations up. That may include everything
3 that's in the orders. That may include other things
4 that are in the orders. We're asking for input on
5 that and we'll be working with the other federal
6 agencies to make sure we have a consistent, as much as
7 possible, and the idea is a consistent regulatory
8 basis.

9 MR. RAKOVAN: Anyone else have any
10 comments or questions at this time? Okay, seeing
11 none, going by the clock in the back, let's take a 15
12 minute break. So that would start us back at 25 after
13 1:00, if I do my math correctly.

14 (Off the record.)

15 MR. RAKOVAN: If people could go ahead and
16 find their seats, we're going to get started again.
17 Okay, at this point I'd like to turn the meeting over
18 to Susan Bagley who's going to be going over some of
19 the proposed requirements.

20 Susan?

21 MS. BAGLEY: Thanks, Lance. Good
22 afternoon. As Lance said, I'm Susan Bagley and I also
23 want to thank you for coming and taking the time to
24 provide your comments to us on this very important
25 topic to us.

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1 Adelaide provided you with some background
2 on the NRC, or the Nuclear Regulatory Commission, and
3 our mission to protect people and the environment.
4 She explained there are several methods that we use to
5 do this, advisories, orders and regulations, and that
6 changing regulations is the most open process that we
7 have which is why we're here today, to gather public
8 and stakeholder comment in this area.

9 Remember Adelaide said prior to 9/11, NRC
10 regulations focused on protecting the public from the
11 inadvertent exposure to radioactive material. Since
12 9/11 the NRC has been working to insure that we can
13 protect the public from the purposeful exposure or
14 misuse of radioactive material. In light of these
15 security measures, in light of that, these security
16 measures are designed to protect against theft and
17 diversion and in the event of an attempted theft or
18 diversion that we promptly detect that theft or
19 diversion and we get it reported.

20 And what do we mean by prompt? We mean
21 right away without delay. We also want to insure law
22 enforcement involvement as soon as possible anytime
23 there's any idea that a shipment may have been
24 misdirected purposefully.

25 The final enhancement we are looking at is

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1 delivery confirmation which insures that none of this
2 material is unaccounted for for any length of time or
3 somehow lost in transit.

4 So now I'm going to review the security
5 measures that we would like to add to the code of
6 federal regulations. Each of these requirements exist
7 in different orders today and are being followed
8 today, so rest assured that it's not that we haven't
9 done anything yet. We have done something. It just
10 hasn't been as visible to the public as we would like
11 it to be because that's a much longer process and
12 that's the process that we're involved in right now.

13 The enhancements are divided into seven
14 categories. Verification, do they have a valid
15 license to possess the material. 2) Where are you
16 sending it? Is that a valid address for that company.
17 Planning and Coordination, how are you going to move
18 it? What's the route? Have you talked to the states
19 that that material is moving through? Have you talked
20 to the receiver that's getting that material? Is that
21 a good day? Is that a good time? Make sure they know
22 when the material is due to arrive.

23 Notifications, if something happens who
24 are you going to call? Who needs to be called? Who's
25 required to be called? Communication, how are you

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1 going to call people? Are you just going to call
2 people? Are you just going to have one cell phone
3 that may run out of a battery? No, you're going to
4 have more than one way to get in contact if you need
5 to.

6 Drivers and Assistants, who's moving the
7 material? Who has control over the material? This is
8 a key piece that, we feel because the driver has
9 complete control over the material, keep it moving and
10 when it's stopped watch it, never leave it alone.
11 Procedures, plan in advance any response to any event
12 and know what they are. Know, have read the
13 procedures and understand the procedures before an
14 event happens.

15 And finally, have a procedure to protect
16 the information. Only those who need to know about
17 these shipments should have the information.

18 The final enhancement is for portable or
19 mobile devices. Adelaide showed you photos of some of
20 those. There's a poster down on the end there that
21 shows you the types of devices that we're talking
22 about. They're basically industrial and medical
23 equipment that travels from site to site in a company
24 truck.

25 Okay, verification. You'll see at the end

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1 of each of these it indicates Category 1 or Category
2 2. Not all of these security measures will apply to
3 both categories. If you recall what Adelaide told you
4 earlier, Category 1 is the larger amounts. Category
5 2 is the smaller amounts.

6 MR. CALDWELL: Sue?

7 MS. BAGLEY: Yes.

8 MR. CALDWELL: Again, we're looking at,
9 this is our thought process at the beginning. It's
10 the framework for discussion, so as we go through
11 these we're looking for information, your thoughts on
12 what you think about these items, more, less, you
13 know. It says in, just one Category 1, Category 2,
14 whatever the case may be. So, thank you.

15 MS. BAGLEY: Right, this doesn't mean that
16 we're limiting this. Our idea is that these should
17 focus on the larger categories, but if you have a good
18 reason why it should focus on a lower category, then
19 we want to hear those.

20 Requirement one is not a new requirement.
21 However, what is new about this requirement is for the
22 shipper to make direct contact with NRC or the
23 appropriate state authority to insure the receiver has
24 a valid license to possess the material. Currently,
25 regulations require them to verify but that, there are

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1 several ways of verifying a person's license. The new
2 requirement is that you're only going to use one way.
3 You're going to call the licensing authority direct.

4 Requirement two, unusual purpose would be
5 an amount of material or type of material that differs
6 from the normal order for that business. Now these
7 companies normally have long-standing relationships
8 with each other and individuals involved in shipping
9 this material are like the rest of us. They want to
10 make sure that the material is used properly. So if
11 they get an order that doesn't seem right, they're
12 going to check and see why all of a sudden they need
13 something different than what their standard operating
14 procedure has called for in the past.

15 And requirement three focuses on those
16 mobile and portable devices that we keep talking
17 about, because these instruments are used to support
18 other industries and may be sent to different
19 locations.

20 This is the end of that category. Are
21 there any questions on the verification, the
22 suggestions for verification that we have? Or
23 comments?

24 MR. RAKOVAN: Yes, questions or comments.
25 Felix if you could --

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1 MR. KILLAR: Felix Killar with Nuclear
2 Energy Institute. On the direct contact with the
3 regulatory authorities, as this has been implemented
4 for some time now, what a number of the licensees have
5 been running into is the states have sometimes, have
6 not been forthcoming on providing that verification.
7 So if the NRC can work with the states to try and
8 improve that process and standardize that process, it
9 would make it easier across the board for all parties
10 concerned.

11 MS. BAGLEY: Okay, thank you.

12 MR. RAKOVAN: I'm thinking we might have
13 a state coming to give her comments. Could you please
14 introduce yourself and let us know who you're with?

15 MS. ROGERS: Sure. Cheryl Rogers on the
16 state of Wisconsin, and of course we never did that.
17 But I would point out that if you're on the receiving
18 end of a phone call at the state, how do you know who
19 you are talking to? How do you know it's okay to give
20 this information over the phone? And, you know,
21 there's a couple of things we can do on a practical
22 basis, but whether that's in the rule or not, I don't
23 know. But there has to be some method for the
24 regulator to know that it's okay to give that kind of
25 information out.

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1 MS. BAGLEY: Do you have any suggestions?

2 MS. ROGERS: Having a prearranged list
3 for, you know, that you get to call back to the number
4 and you know that that is a valid contact. I don't
5 want to get too cloak and dagger, but you know, some
6 kind of a pass phrase or pass code.

7 MS. BAGLEY: Thank you.

8 MR. RAKOVAN: Thank you for the input.
9 Anyone else have any input specifically on
10 verification? Okay.

11 Do you want to go on to the next topic,
12 Susan?

13 MS. BAGLEY: Yes.

14 MR. CALDWELL: This is not their last
15 opportunity to get on --

16 MR. RAKOVAN: Oh, no, certainly not. If
17 you want to make a comment on verification later,
18 we'll definitely, all right, I've got a late hand.
19 Could you please come up? I'm sorry, I'm going to ask
20 you so we can make sure we get it on the transcript.

21 MR. HUIJ: Jason Huj from the state of
22 Wisconsin too. Just a question on number three there.
23 It says verify the address for a temporary work site
24 is valid, Category 1 source. So industrial
25 radiography sources would not fall into that category?

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1 They're a Category 2 source, aren't they?

2 MR. CALDWELL: Yes, they are.

3 MR. HUIJ: So, okay.

4 MS. PELKE: But I just want to understand.

5 I thought the purpose of the meeting --

6 MR. RAKOVAN: Patty, Patty, we need you to
7 speak in here if you're going to make a comment. Do
8 you want to come up?

9 Adelaide, are you, Adelaide, would you
10 like to capture Patty's thoughts?

11 MS. PELKE: Hi, I'm Patty Pelke from
12 Region 3. And I thought that the purpose of the
13 meeting was to discuss the current requirements that
14 are out there, indicate that they apply to Category 1
15 or Category 2, but that we're, the purpose of the rule
16 making is to determine what we should capture and if
17 there are Category 1 criteria right now that as a
18 result of stakeholder input people believe should
19 apply to other categories of radioactive material
20 quantities of concern, then the criteria would be more
21 broadly imposed. That's the purpose of the meeting?

22 MS. GIANTELLI: Yes, yes. Jason, do you
23 want to clarify that, if you think that's a
24 requirement that should be dropped down into the
25 Category 2 quantities, that third requirement?

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1 MR. HUJ: Yes.

2 MR. RAKOVAN: Yes? Okay, well that's an
3 affirmative.

4 MR. HUJ: Temporary, I mean it says
5 temporary work site.

6 MR. RAKOVAN: For temporary work site
7 specifically, for verification number three. Okay.
8 Any additional comments on verification? Again, we'll
9 open the floor up when we're done, but we're just
10 going to continue to go requirement by requirement.
11 Susan? Oh, we've got another one.

12 MS. ROGERS: Cheryl Rogers again. I think
13 for the temporary job site, if we did drop it down to
14 industrial radiography that may be a little bit
15 onerous. We do know for the people that come in out
16 of state under reciprocity where they're working.
17 They're required to tell us. But we have, I don't
18 know, 10 or 12 industrial radiographers in the state
19 and we do not know their temporary job sites.

20 So I don't know who you're going to ask to
21 verify that, so that may be an issue with dropping
22 down to Category 2. I'm not sure that we shouldn't do
23 it. I just think that there's some things that would
24 have to be addressed.

25 MS. BAGLEY: Remember this is a

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1 transportation requirement, so it wouldn't be just
2 working at a temporary address. It would be if the
3 material was being shipped to that address.

4 MR. RAKOVAN: Sir, if you could identify
5 yourself, please?

6 MR. SLACK: My name is Bob Slack. I'm
7 with Conam Inspection. We're a non-destructive
8 testing company. You say shipping. You're
9 considering that the radiographer and the radiography
10 company is shipping by transporting?

11 MS. BAGLEY: Yes. When they move the
12 device at that category.

13 MR. SLACK: So if in state, Wisconsin was
14 talking about, has in state radiographers, they're
15 going to have to notify the state that as a licensee
16 they're moving their shipments throughout the state?

17 MS. BAGLEY: If we drop it down to
18 Category 2.

19 MR. SLACK: I don't think it should be
20 moved down to Category 2. Thank you.

21 MR. RAKOVAN: Any further discussion on
22 this one?

23 MS. BAGLEY: Going once, going twice.

24 MR. RAKOVAN: Well, it's not gone because
25 we can come back to it. All right, let's go ahead and

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1 move on to the next one then, Susan.

2 MS. BAGLEY: Okay. There are two slides
3 in this category, planning and coordination, departure
4 time. Departure time is coordinated with state
5 authorities to allow states the opportunity to add any
6 additional security measure they deem necessary, for
7 instance, law enforcement escorts. Again, this
8 applies to the larger quantities. Arrival time is
9 coordinated for both categories to insure prompt
10 detection of a missing or lost shipment.

11 Receipt confirmation is a requirement on
12 both the shipper and receiver, to contact one another
13 to insure the material has arrived safely and intact.
14 And preplanning and coordination the shipment with
15 state authorities, allow the states the opportunity to
16 develop emergency procedures, arrange for escorts and
17 require pre-planned actions for drivers, shippers or
18 receivers.

19 Carriers differ from shippers in that
20 carriers are the actual trucking company that
21 physically moves the material and carriers are not
22 normally NRC licensed companies. Carriers are
23 regulated by the Department of Transportation, and DOT
24 regulations include strict requirements for moving
25 radioactive material on public highways and roadways.

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1 Commercial tracking systems are available
2 from USPS, Federal Express, UPS, DHL, et cetera. They
3 tell you where the package was last. Commercial and
4 active monitoring means the tracking systems can
5 pinpoint the shipment to a relatively small geographic
6 area. Again, this would apply to the larger
7 quantities. It's a more expensive technology.

8 Direct control and ability to contact
9 assistance requires the drivers have physical or
10 visual control of the material at all times and the
11 ability to call for assistance.

12 Are there any questions on the planning
13 and coordination? Or any comments?

14 MR. RAKOVAN: Again, looking for any
15 questions or comments, discussion, on these two slides
16 and the materials discussed.

17 MS. BAGLEY: There's the first slide
18 again. And the second slide.

19 MR. DORUFF: Mark Doruff again with CORAR.
20 Just a question for clarification. I believe in the
21 Federal Register notice there was a statement to the
22 effect that the scope of this rule making would, would
23 only, would not involve air shipments.

24 MS. BAGLEY: That's correct.

25 MR. DORUFF: Is that correct? So then I

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1 think what we would need to consider in this aspect of
2 the requirements is how do you break out the different
3 modalities within the transportation network. In some
4 cases, if this wouldn't apply to air shipments, air
5 shipments are a common modality with regard to moving
6 radioactive materials. So that would, you, we need to
7 work through that.

8 MS. BAGLEY: Yes, well, the FAA has
9 requirements. So the shipper or the carrier, for
10 instance FedEx or DHL, they would meet ours for the
11 ground portion and then once they put it on their
12 aircraft, they would be the FAA requirements at that
13 point. So we're not saying there are no requirements
14 for the air or that there shouldn't be requirements
15 for air, it's just that the requirements that are in
16 place for air are being followed and they would be,
17 they're a requirement by the air carrier.

18 MR. DORUFF: But with regard to planning
19 and coordination in tracking, you know, I'm just, I'm
20 not in a position here to discuss the details of how
21 you would do this. I just wanted to express a
22 potential concern that you might be tracking a ground
23 shipment and then it goes, changes modality. Then at
24 what point does that tracking end and then the next
25 leg of the shipment, when do you, you know, resume the

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1 tracking exercise. So it's, there could be some
2 intermodal difficulty here with regard to this.

3 MS. BAGLEY: I see the gap now. Yes,
4 thank you.

5 MR. RAKOVAN: Thank you, sir.

6 MR. PITTS: Andrew Pitts with Alpha
7 Neutronics. Concerning the verification, item three
8 is the temporary work site. I agree with the
9 gentleman in Conam for, at least from the wire line
10 industry. I think it would be okay to exclude an
11 escorted source by the company transporting it such as
12 a radiographer or a wire line company because that
13 individual actually goes to the temporary job site
14 with their source. They don't just ship it. So if
15 you had that verification, maybe exclude the escorted
16 sources of concern.

17 MS. BAGLEY: Okay, so if the trustworthy
18 and reliable person who's the radiographer himself and
19 has access to the material and is cleared to have
20 access to the material, moves the material himself,
21 then, within a state, that would be fine. But if he's
22 at a site and he's having a shipment sent to him, then
23 in that case that address would be verified.

24 MR. PITTS: Right, just the unescorted
25 versus escorted.

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1 MR. PURDY: Right. Gary Purdy, NRC. The
2 verification is for the transfer of material from one
3 licensee to another, not just the transport. And so
4 if, for example, a manufacturer and distributor had
5 material shipped to a temporary job site, then they
6 would verify the address of the temporary job site.
7 It's not applying to a radiographer who's moving the
8 material himself.

9 MR. PITTS: Or a wire line.

10 MR. PURDY: Or a wire line, right.

11 MS. BAGLEY: Currently, but --

12 MR. PURDY: Currently.

13 MS. BAGLEY: -- if we move back down to
14 Category 2 requirement --

15 MR. PURDY: But it still, this has to do
16 with transfer not transport.

17 MS. BAGLEY: Okay, all right. Thank you,
18 Gary.

19 MR. RAKOVAN: Thanks for the
20 clarification, Gary. Any other comments or questions
21 involving verification or planning? Please, sir, if
22 you could identify yourself.

23 MR. HORN: I'm sorry. Kelly Horn, state
24 of Illinois. I'd like a little clarification before
25 I make a comment or ask a question because it may make

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1 the whole thing moot. Is this for domestic shipments
2 only?

3 MS. BAGLEY: Yes.

4 MR. HORN: So for transcontinental
5 shipments, this falls by the wayside?

6 MS. BAGLEY: Oh, go ahead Adelaide.

7 MS. GIANTELLI: For transshipments, at
8 this point in time there is no NRC licensee involved
9 in that transaction. So the authority the
10 transshipment falls under is DOT and DHS. We are in
11 working groups with them to address that issue, but
12 it's not going to be part of this requirement. To the
13 credit of the companies that are transshipment through
14 the United States, have agreed to voluntarily employ
15 our security measures.

16 MR. HORN: Yes, I agree with that. I
17 guess my concern is if we're going to have a proposed
18 rule out there or legislation out there that is going
19 to have teeth, then I would think it would have to
20 encompass all radioactive materials that are in
21 quantities of concern moving within the boundaries of
22 the United States. If it's just for domestic
23 shipments, then what teeth does that have when maybe
24 a large portion of what is being moved through the
25 United States is a transcontinental shipment.

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1 So, just a thought. I mean, if it's going
2 to be there it needs to be there and have some
3 legitimate teeth to it. Thank you.

4 MR. RAKOVAN: And just to make sure, a
5 transcontinental shipment is one that goes through the
6 United States but doesn't stop anywhere. Is that,
7 okay, I just wanted to make sure.

8 MS. GIANTELLI: -- United States --

9 MR. RAKOVAN: Okay, thanks. Any other
10 discussion before we move on to the next proposed
11 requirement? All right, Susan, do you want to go
12 ahead?

13 MS. BAGLEY: Yes. Notifications, first
14 shippers must notify NRC and the affected states
15 before shipping. This is a seven day advance
16 notification requirement.

17 Requirement two insures that shippers and
18 receivers are in touch at delivery time and initiate
19 an investigation for any shipment that does not arrive
20 on time. The investigation would include calling the
21 driver in the case of a Category 1 shipment, and
22 tracking the package through an online process for a
23 Category 2 shipment.

24 And requirement three requires that law
25 enforcement, the NRC and state authorities be notified

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1 if investigation reveals that the shipment may be
2 lost, missing or stolen.

3 This is the only slide in the Notification
4 category, so if you have comments?

5 MR. SLACK: Bob Slack with Conam
6 Inspection. Would you reiterate number two, please?

7 MS. BAGLEY: If the shipment does not
8 arrive at the expected arrival time, the shipper and
9 receiver are in contact so they can initiate an
10 investigation. So in a Category 1 investigation, the
11 driver, the first step would be to try to find the
12 driver. And if it was a Category 2 shipment, then
13 there's an online process to find out where the
14 package is.

15 MR. SLACK: And who initiates that?

16 MS. BAGLEY: Either the shipper or
17 receiver. They talk to each other and they decide
18 who's going to do that, but they're both responsible.
19 Both could be held accountable if it's not done.

20 MR. SLACK: All right. In item number
21 three, can you define missing?

22 MS. BAGLEY: Missing means that at the
23 coordinated arrival time, that they go online and
24 let's say it's a Category 2 and it says that it had
25 been through the, it was on a truck and should have

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1 been delivered that day and it's not delivered, it's
2 missing. If it's a Category 1 and there's no answer
3 on the phone of the trucker, it's missing.

4 MR. SLACK: So if on a Monday I do next
5 day air FedEx to Burlington, Massachusetts and it
6 doesn't arrive on Tuesday --

7 MS. BAGLEY: By 3:00 o'clock, right.

8 MR. SLACK: -- and I contact FedEx and
9 FedEx says it's in your system, it's in their system,
10 they know where it is, is it missing?

11 MS. BAGLEY: And they can tell you where
12 it is?

13 MR. SLACK: They know where it was last
14 and they know where it's going, so is it missing in
15 their system?

16 MS. BAGLEY: No. If they know, if they
17 have a valid reason why it's not at your place, if
18 they know it's missing, in other words, if they say
19 oh, god, it should be there, you know.

20 MR. SLACK: Yeah.

21 MS. BAGLEY: We know it should be there,
22 it should be on the way, it's missing. If they say
23 that plane was grounded and it's going to be delayed,
24 then they know where it is. So --

25 MR. SLACK: If they say that it was last

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1 in Memphis and it should be in Burlington and we're
2 pursuing it.

3 MS. BAGLEY: It's missing. We would like
4 to know that.

5 MR. SLACK: So do we make the
6 determination as a radiography company that it's
7 missing and make the contact?

8 MS. BAGLEY: Yes, you do.

9 MR. SLACK: Even though FedEx says no,
10 it's in our system and we control it.

11 MS. BAGLEY: Yes, you do. I would err on
12 the side of --

13 MR. SLACK: Because that is currently
14 their determination.

15 MS. BAGLEY: It's missing. Again, we
16 don't license FedEx. We license you and it's your
17 responsibility to know where it is, and if FedEx says
18 it's supposed to be there, we'll try to find it, but
19 it's supposed to be there, then it's missing. If they
20 say that plane was downed or it was mis-shipped or oh,
21 it didn't go to Tennessee, it went to Kentucky, then
22 I would say it's not missing. They know it's been
23 misdirected. Go ahead, Adelaide.

24 MS. GIANTELLI: I'm guessing your comment
25 is that you want us to put a clear definition of

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1 missing in our requirements with all these, what is
2 meant by lost, stolen or missing.

3 MR. SLACK: Correct.

4 MS. GIANTELLI: You would want a clear
5 definition in the requirements --

6 MR. SLACK: Yeah, as you've defined what
7 to do on an investigation and what that consists of,
8 the same thing with missing.

9 MS. GIANTELLI: Okay.

10 MS. BAGLEY: Okay.

11 MR. SLACK: Or any other questionable lost
12 or stolen. Thank you.

13 MR. CALDWELL: As you go back and you
14 think about that, if you've got some ideas we'd
15 appreciate them.

16 MR. RAKOVAN: Additional discussion on the
17 topic of notification? Please.

18 MR. HUIJ: Jason Huij again. Just a
19 clarification there for 3B, it says if the shipment
20 has been lost, stolen or missing immediately notify
21 NRC Operations Center and the appropriate agreement
22 state regulation authority. For Category 1 only? I
23 don't, the increased controls right now require us --

24 MR. PURDY: It applies to Category 2 also.

25 MR. HUIJ: Okay, so would that also, should

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1 that be Category 1 and Category 2 then?

2 MR. PURDY: Yes.

3 MR. HUIJ: Okay.

4 MS. BAGLEY: Yes, actually this is an old
5 slide. That Category 1 and 2 should be up after the
6 three and then there should be nothing on those --

7 MR. HUIJ: Okay, okay.

8 MR. RAKOVAN: You were just looking for
9 clarification there, though, you weren't making a
10 comment that that's the way it should necessarily be.
11 Is that, okay. Okay.

12 MS. BAGLEY: All right. Thank you for
13 correcting that on the slide. This slide is wrong.

14 MR. RAKOVAN: Any other discussion on this
15 particular topic before we move on? Okay, got one
16 more.

17 MS. BAGLEY: Before we begin to discuss --

18 MR. RAKOVAN: Susan, hold on, one more
19 comment.

20 MS. BAGLEY: Sorry.

21 MR. SLACK: I'm sorry. I didn't hear the
22 last discussion, but it was, you're talking about a
23 slide that wasn't correct. Did you go to it?

24 MS. BAGLEY: Yes, this is the slide. If
25 the shipment has become lost, stolen or missing, after

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1 that it should be in parentheses Category 1 and 2.

2 MR. SLACK: Oh, okay, so the immediate
3 notification to the appropriate agreement state,
4 Category

5 1 --

6 MS. BAGLEY: This should say Category 1
7 and 2 also. In other words, the whole, these apply to
8 both categories.

9 MR. SLACK: All right. What is the
10 appropriate agreement state if you're licensed in
11 Illinois and you're sending it to Massachusetts?

12 MS. BAGLEY: If you're the Illinois, if
13 Illinois holds your license then you call Illinois.
14 And then if the receiver is licensed by their state,
15 they would contact their state.

16 MR. SLACK: And what if you're an NRC
17 licensee likewise?

18 MS. BAGLEY: Then you would call the NRC.

19 MR. SLACK: So do I have to call in
20 Illinois the NRC here and the agreement state?

21 MS. BAGLEY: I'm confused.

22 MR. SLACK: I'm an Illinois licensee.

23 MS. BAGLEY: Yes.

24 MR. SLACK: I'm an NRC licensee in
25 Illinois. Do I have to call both the NRC and the

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1 agreement state to make notification?

2 MS. BAGLEY: Yes. You're a state
3 licensee.

4 MR. SLACK: Correct, but I'm also an NRC
5 Region 3 licensee.

6 MS. BAGLEY: Right. So you're going to
7 call the state and the NRC Op Center.

8 MS. GIANTELLI: Wait a minute. Which
9 entity issued the authorization to possess the used
10 material? Both?

11 MR. SLACK: Yes.

12 MS. GIANTELLI: Then you identify all the
13 appropriate regulatory authorities. That's --

14 MR. SLACK: If the operation that
15 possesses the radiographic material is Illinois, then
16 would it be both or just one?

17 MS. PELKE: You're only authorized --

18 MR. RAKOVAN: Patty?

19 MS. PELKE: I'm just trying to clarify the
20 question.

21 MR. RAKOVAN: That's all right. You've
22 got to clarify it on the record.

23 MS. PELKE: Okay, can I use one of these?
24 As I understand the question, you have an NRC license
25 that authorizes certain activities and you also have

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1 the state of Illinois license which authorizes certain
2 activities. Your shipment was intended for
3 Massachusetts, also an agreement state?

4 MR. SLACK: Correct.

5 MS. PELKE: And your NRC and your state of
6 Illinois license authorize the same activities, let's
7 say radiography.

8 MR. SLACK: Correct.

9 MS. PELKE: And you were shipping
10 radiography sources. Then in that case you would
11 notify both the state and the NRC.

12 MR. SLACK: But we only possess in the
13 state of Illinois under the Illinois license.

14 MS. PELKE: But you're licensed to use
15 material on your NRC license at temporary job sites
16 that the NRC regulates.

17 MR. SLACK: Which it doesn't in Illinois.

18 MS. PELKE: Right, but your material isn't
19 lost in Illinois, right?

20 MR. SLACK: But it's possessed in --

21 MS. PELKE: And it might not necessarily
22 be lost in Massachusetts, it may be lost in --

23 MR. SLACK: But it's possessed in Illinois
24 under the Illinois license.

25 MS. PELKE: Right, but there's a, but

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1 because the --

2 MR. RAKOVAN: I think I might have to step
3 in here because this is getting overly complicated.
4 Is there any way that we can handle this on a side
5 discussion because it doesn't sound like there's an
6 easy answer to this.

7 MS. PELKE: Right.

8 MR. RAKOVAN: Although if you could
9 identify, careful, there it goes. All right. If
10 you're going to jump in, identify yourself and let's
11 see where this goes. But it's getting overly
12 complicated and I guess if you have a particular
13 comment you'd like to make about this situation that
14 would be good. Sir, if you want to introduce
15 yourself.

16 MR. DIXON: Chris Dixon, Acuren
17 Inspection. Wouldn't it be who the manufacturer
18 transferred the radioactive materials to? So if you
19 received your source under your Illinois license, the
20 Illinois license would be the regulatory agency that
21 you would have to notify because the materials were
22 received by the Illinois license. We have the same
23 situation. We have an NRC license. We have several
24 regulatory licenses.

25 MS. BAGLEY: I think we should take

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1 everyone's comment that, because I know that our
2 intention was NRC Operation Center is always notified.
3 And then if you're also an agreement state licensee,
4 you notify them also or any states that you have taken
5 that material through that is an agreement state. The
6 NRC Operations Center would then let those states know
7 that there's potential material missing in those
8 states.

9 But I believe, I know that our intention
10 by this bullet was the NRC Operations Center is always
11 notified. There wouldn't be a time where we wouldn't
12 be notified. And then if you're also an agreement
13 state licensee, you will call them also. And the NRC
14 will also be involved in notifying the other states,
15 agreement states and non-agreement states involved.

16 The process here is not to get anyone in
17 trouble. We're protecting people and the environment.
18 We want to find out where the stuff is. It's not
19 about whose fault it is. It's not about who doesn't
20 know where it is. It's about let's do what we can to
21 make sure that there's not a problem.

22 MR. SLACK: We're not interested in fault.
23 We're interested in what the reporting criteria is and
24 at this point in time, it seems to be confused.

25 MR. CALDWELL: Actually, I'd like to,

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1 that's what we're here for this meeting. I'd like to
2 find out what you think the right thing is.

3 MR. SLACK: I think it should be Illinois.

4 MR. RAKOVAN: He thinks it should be
5 Illinois.

6 MR. CALDWELL: Illinois.

7 MR. RAKOVAN: For the record. I know I'm
8 confused, but thankfully I'm not writing this rule so.

9 MR. CALDWELL: Yes, well that's what, get
10 back to first principles here. We're here to gather
11 information and I'd like to know, you know, not just
12 the conclusion. But I'm really interested in getting
13 the bases, because we're going to be tasked with
14 trying to put this together, all these comments, into
15 a logical sequence of events and then justify to our
16 commission. Bob Caldwell doesn't make the rule. Bob
17 just provides through his staff up to the commission
18 what the options are and what are the pluses and the
19 minuses to each option.

20 So I appreciate the conclusion, but I need
21 to know more of the bases so as we craft the initial
22 proposed rule, we're not even at the proposed rule
23 point, but as we craft it we have a good basis, pluses
24 and minuses for each of the options to provide to the
25 commission to make the final decision.

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1 MR. KILLAR: Felix Killar, Nuclear Energy
2 Institute. One of the things I want to point out and
3 that actually kind of leads through the discussion
4 you've had here, is that when you talk about the
5 thousands of licensees out there that are handling
6 this, the thousands of licensees are at the agreement
7 states, they're not at the NRC. And so it's highly
8 likely that it may be from an agreement state licensee
9 to another agreement state licensee, the actual
10 shipper who the agreement state licensee may not have
11 any idea who the NRC is --

12 MR. RAKOVAN: Is there any more discussion
13 on this particular topic or anything else that we've
14 covered so far? All right, Susan, do you want to move
15 forward?

16 MS. BAGLEY: Okay, communications. Before
17 we begin to discuss the suggested communication
18 enhancements, I'd like to define the concept of a
19 communication center. By communication center, we
20 mean a 24 hour operation that has the capability to
21 assist, track and respond to any incidents involving
22 a shipment. It may be part of the shipping company or
23 it may be a separate company contracted or hired to
24 perform the service.

25 In the area of communications, when we

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1 talk about redundant communications we mean backup or
2 a second means of communication. Not only does the
3 driver need a second means of communication, but the
4 second kind of communication cannot be subject to the
5 same interference or failures as the first. So two
6 separate cell phones managed by Verizon and AT&T, or
7 Sprint and someone else would not be redundant
8 communications because if you're in an area with no
9 cell tower, then cell phones don't work. It doesn't
10 matter who your carrier is.

11 The third enhancement provides a passive
12 means of communication between the driver and the
13 communication center. The fourth enhancement requires
14 the driver to periodically call the communication
15 center with updates. These are preplanned call times
16 that the driver makes prior to the trip directly with
17 the communication center. They're not known to anyone
18 else. They're not always the same time for every
19 single shipment and every single driver. Each driver
20 makes those arrangements so that if there is any
21 discrepancy, the communication is aware that the
22 driver has missed one of his check-in times.

23 And the final communication enhancement is
24 the assurance that procedures are in place to provide
25 guidance to the driver and the communication center in

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1 an emergency. So as a licensee, if you contract with
2 a third party to be your communication center, part of
3 your responsibility is to develop procedures or
4 protocols with that center that they know what to do
5 if a driver misses a call or if anything unusual
6 occurs with that shipment.

7 MR. RAKOVAN: Okay, on the subject of
8 communications, any questions, comments, perspective
9 or other discussion?

10 MR. DORUFF: Mark Doruff, Council on
11 Radionuclides and Radiopharmaceuticals. I'm just
12 questioning with regard to communications or any other
13 requirements that would be imposed on carriers, how
14 does or does NRC have regulatory jurisdiction over
15 carriers or would this be something that would be more
16 appropriate for the DOT to regulate?

17 MS. BAGLEY: The DOT currently has
18 regulations on carriers in specific instances, but
19 these are regulations for licensees and if they
20 contract with a carrier it's up to them to insure that
21 the carrier can meet these.

22 MR. DORUFF: So this would, these
23 requirements would particularly be applicable to
24 shippers who are also carriers, and because they are
25 shippers they are also licensees. Is that correct?

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1 MS. BAGLEY: It applies to both, but yes.

2 MR. DORUFF: What about contracted
3 carriers who are not licensed?

4 MS. BAGLEY: Then the --

5 MS. GIANTELLI: Let me jump in here.

6 MR. DORUFF: Sure.

7 MS. GIANTELLI: The thought is that
8 licensees would use carriers that have these
9 capabilities, whether they -- themselves or contract
10 with a third party. So it's not a requirement
11 directly on carriers, rather a requirement on the
12 licensee to use carriers with these specific
13 capabilities.

14 MR. DORUFF: Okay, thanks for the
15 clarification.

16 MR. RAKOVAN: Did you have any comment
17 about any of that or you were just seeking
18 clarification?

19 MR. DORUFF: Just clarification.

20 MR. RAKOVAN: Just clarification, okay.
21 Any other discussion? Okay. I'm making sure you guys
22 get plenty of exercise today coming back and forth, I
23 guess, you know.

24 MR. KILLAR: Felix Killar, Nuclear Energy
25 Institute. I understand what you said, Adelaide,

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1 about what we do as a contract with carriers.
2 However, as these regulation requirements become more
3 and more a burden, the number of carriers that have
4 these capabilities or are willing to provide these
5 capabilities get less and less. And so it's making it
6 more difficult for us to get carriers to move this
7 material.

8 In the communications area, basically what
9 you're doing is saying you have a cell and a satellite
10 phone as well and a lot of carriers don't have
11 satellite phones. They're not willing to put the
12 satellite phones on. They said if cell phones aren't
13 adequate, you know, you'll have to find you another
14 carrier.

15 So I appreciate what you're trying to do,
16 but what you're also doing is causing, you know, a
17 burden to try and get the appropriate carriers.

18 MR. CALDWELL: I appreciate that and we're
19 looking for that kind of feedback, but we're also
20 looking for, she mentioned cell phones, we're looking
21 for any kind of an alternate communications or
22 alternate communications type of processes.

23 So if you've experienced or you've got
24 ideas that you see, we're looking at this, are these
25 reasons pretty prescriptive. They may be

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1 prescriptive. They may be more performance based.
2 They may just say you need redundant communications
3 capability so that you're not trapped in the middle of
4 the desert without a way of contacting somebody. But
5 we're looking for ideas and the pluses and the minuses
6 for those ideas.

7 MR. SLACK: Bob Slack, Conam Inspections.
8 Item number one, this is for the carrier. Is that
9 correct?

10 MS. BAGLEY: The --

11 MR. SLACK: This involves the carrier,
12 FedEx or DHL or whatever.

13 MS. BAGLEY: Well, this would be a
14 Category 1 shipment so if it was FedEx, yes, it would
15 be their specific single source customer carrier
16 system.

17 MR. SLACK: Okay. Earlier you said that
18 you don't license FedEx. How can the NRC dictate to
19 FedEx if you don't license them?

20 MS. BAGLEY: We're not dictating to FedEx.
21 What we're telling our licensees is if FedEx can meet
22 these requirements you can use them. If DHL meets
23 these requirements, you can use them. That's what
24 we're doing. We are not --

25 MR. SLACK: So you're making, the NRC is

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1 making requirements for FedEx to comply with not under
2 a license.

3 MS. BAGLEY: We could talk about this all
4 day, but I appreciate your comment. So what we need
5 to do is capture your comment on the licensing of
6 carriers. Obviously, we don't license carriers in the
7 NRC, but we do place requirements on moving
8 radioactive material and if that affects a carrier, it
9 affects a carrier. So --

10 MR. SLACK: So this communication portion
11 is directed towards those receivers or shippers of
12 radioactive materials.

13 MS. BAGLEY: Yes.

14 MR. SLACK: And not the one that actually
15 transports it.

16 MS. BAGLEY: Yes.

17 MR. SLACK: Thank you.

18 MR. RAKOVAN: Further discussion on
19 communications? Susan, do you want to move to the
20 next topic?

21 MS. BAGLEY: These are the enhancements
22 that affect drivers. We spoke earlier about the
23 communication center setting up preset call-in times,
24 preset stops, no casual stops during transport. The
25 route is defined. If that shipment needs to stop, the

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1 stops are defined. If stopped and when stopped, one
2 individual stays with the shipment and monitors that
3 shipment. It doesn't mean they can sit in the cab for
4 a half hour, an hour while one driver eats and then
5 switch places or whatever they've stopped for. They
6 need to periodically get out of the cab, walk around
7 the vehicle, maintain surveillance of that shipment.

8 For rail shipments, an escort is required
9 whenever the rail car is not attached to a moving
10 train.

11 MR. RAKOVAN: Any discussion on proposed
12 requirement for drivers and assistants? Okay, I
13 wanted to give a long pause on that one but, give you
14 guys a chance to mull it over. We can come back to
15 it. Susan, do you want to go ahead and move forward
16 then?

17 MS. BAGLEY: Procedures, the requirement
18 is to implement policies and procedures for protection
19 against unauthorized disclosure of the transportation
20 security information. This is commonly referred to as
21 the need to know.

22 The second contingency procedure would be
23 to have established procedures in case an event does
24 happen, a shipment goes lost or theft or an attempted
25 diversion or an attempted theft. And the importance

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1 of these procedures is that people know and are
2 rehearsed on what to do in the event. When the event
3 happens, it's not the first time that they read a
4 procedure.

5 So it identifies when to use
6 authentication or duress codes. A contingency
7 procedure could identify when to use authentication or
8 duress codes. It provides training to drivers and
9 assistant drivers and communications centers on those
10 procedures. And again, during an emergency should not
11 be the first time that individuals read the procedure.

12 MR. RAKOVAN: Any questions, comments or
13 discussion on procedures?

14 MR. KILLAR: Felix Killar, Nuclear Energy
15 Institute. One of the issues that's come up with the
16 procedures is that what we've been viewing is two sets
17 of procedures. One that the shipper establishes and
18 implements throughout his shipment, but then there's
19 also a procedure that the carrier himself has and that
20 interfaces with the shipper's procedure.

21 The issue that we've been running into,
22 though, is that the, because a shipper, or the carrier
23 has multiple shippers, trying to get his plan to
24 implement with all the various shipper's plans has
25 become more and more difficult. We've previously

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1 asked the NRC to review and provide either an
2 endorsement or some type of recognition of the carrier
3 procedures security plans, what have you, and the NRC
4 has been reluctant to do that. We'd like them to
5 rethink that again.

6 MS. BAGLEY: Thank you.

7 MR. RAKOVAN: Any other discussion on
8 procedures?

9 MR. PITTS: For item number two, develop
10 normal, you mention there that not the first time
11 someone would read the procedures. Are these going to
12 be more prescriptive than what's stated on the slide?

13 MS. BAGLEY: That responsibility belongs
14 to the licensee. Within the regulation, we're taking
15 comments on what your procedures must include.

16 MR. PITTS: Okay. What they --

17 MS. BAGLEY: You know, points it must
18 include, but the actual plan, procedure would be
19 something that would be inspectible at the licensee,
20 not something --

21 MR. PITTS: So would the regulations have
22 a requirement about training on the procedures or a
23 test of the procedures or how would that --

24 MS. BAGLEY: Not at this time, but that's
25 what we're looking at.

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1 MR. CALDWELL: Is that your
2 recommendation?

3 MR. PITTS: If you're going to say not the
4 first time someone would read the procedures and be
5 able to implement them in case of emergency and you
6 want to make sure that's the case, then there should
7 maybe be some kind of training or some kind of
8 requirement to be exercised on if that's the intent of
9 the rule.

10 MS. BAGLEY: Thank you.

11 MS. GIANTELLI: So you want -- training
12 list of signs having developed normal procedures, you
13 want the the requirements, to include provisions for
14 training and other procedures.

15 MR. PITTS: If the intent is not the first
16 time someone would read the procedures in the case of
17 an emergency. If that's the intent of the regulation,
18 that it not be the first time, then there should be
19 some requirement.

20 The other question I have on there is you
21 should also state where these procedures should be
22 located at. Should they be with the vehicle or
23 should, are they going to be required to be with the
24 vehicle or are they going to be required back at the
25 licensee's location, home location.

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1 MR. RAKOVAN: Thank you for those.
2 Further discussion on procedures? Susan? Oh, wait,
3 late mover.

4 MR. SLACK: Bob Slack, Conam Inspection.
5 With these slides being presented as they are, there
6 are a lot of generalities in the way of undefined
7 requirements. Disclosure of transportation security
8 information, we need as an industry to know what that
9 is. Any other general statements need to be defined
10 better than they are currently, at least on the
11 slides. They may be defined. There may be a new reg
12 that comes out, I don't know. But we would appreciate
13 seeing better definitions of what it is that you folks
14 think this is comprised of.

15 MS. BAGLEY: Thank you.

16 MR. CALDWELL: I appreciate that.

17 MS. BAGLEY: And we would ask that any
18 ideas that you have on what would be a reasonable
19 measure of unauthorized disclosure, we would like that
20 input.

21 MR. CALDWELL: Again, that's one of the
22 things we really want to get out of these meetings is
23 we have a list of, a framework of where we're thinking
24 we're at. But that's not the final product and the
25 fidelity that you can add on this from being

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1 stakeholders and doing this on a day in and day out
2 basis, the pluses and the minuses, that's what we're
3 trying to get.

4 If you want to take this back and cross
5 out line items and add in different line items and
6 provide a basis for that, that would help us out
7 greatly. That's exactly what we're looking for.

8 MR. RAKOVAN: Okay, so we move on then?
9 Susan?

10 MS. BAGLEY: Okay, and my final slide, not
11 the final slide of the presentation, just my final
12 slide, portable and mobile devices. We talked about
13 this a couple times today. These are devices that are
14 moved around and applies to licensees who move these
15 devices in the course of their work.

16 Category 2, I don't think there's any
17 devices, right Gary, that are not, they're all, I mean
18 some are not in Category 2, but there are none in
19 Category 1.

20 MR. PURDY: Not to my knowledge, yes.

21 MS. BAGLEY: Okay. Two independent
22 physical controls, that has to do with on the truck,
23 in the truck, to secure that device. For devices in
24 or on a vehicle or a trailer, use a method to disable
25 the vehicle or the trailer so when it's parked

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1 somebody can't steal that vehicle or remove the
2 trailer and pull it with another vehicle.

3 Maintain access control to the vehicle,
4 that means control of those keys, know who's
5 authorized to have those keys. And immediately detect
6 a way, immediately detecting unauthorized access to
7 the vehicle or the trailer depending on where the
8 source is.

9 MR. RAKOVAN: And again, these are only
10 for Category 2 sources, correct?

11 MS. BAGLEY: Yes, portable and mobile.
12 These are specifically to portable and mobile sources.

13 MR. RAKOVAN: Okay. Any discussion on
14 these particular requirements? Input? Questions?
15 Please.

16 MR. HORN: Kelly Horn, state of Illinois
17 again. Just a quick comment, for RAMQC specifically,
18 if the shipper is a third party, or the carrier is a
19 third party, does not hold a license, the licensee
20 goes out and contracts a shipper, or excuse me, I keep
21 saying a shipper, a carrier. Would it not be a lot
22 easier, and going back to my comment earlier about
23 providing rule making that encompasses both domestic
24 and transshipments, that it would be a lot easier to
25 encompass all of what we're talking about here today

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1 as far as all these notifications and verifications
2 and so on and so forth, the communication systems, if
3 we make the carrier of RAMQC a general licensee?

4 If a general licensee is able to meet of
5 all of what we're talking about, then is it not easier
6 for the shipper or the licensee to contract with that
7 carrier? They would already be a general licensee,
8 have a general NRC license for RAMQC material. Just
9 a comment.

10 MR. RAKOVAN: Okay, thanks for that. Sir?

11 MR. SLACK: Bob Slack, Conam Inspections.
12 Item C, I know there are many scenarios that can come
13 into effect, but the, maintaining access and control
14 of the vehicles, we're required by our customers to
15 leave our keys in the vehicles when we're at a certain
16 location for safety purposes. I asked previously to
17 have the NRC address this to us how we can meet the IC
18 order and continue to meet our customers requirements.
19 And I would ask again that, and this is basically on
20 a refinery in an operating unit.

21 MS. BAGLEY: I'm curious, how do they
22 protect your vehicle from being stolen if you park a
23 vehicle at a site and leave the keys in? What's their
24 responsibility to you?

25 MR. SLACK: I do not know.

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1 MS. BAGLEY: Okay. I think that's
2 something we need to explore because that's a means of
3 access control. If they are controlling access to your
4 vehicle and they need the keys there in case of an
5 emergency or fire or something so they can move your
6 vehicle right away, as long as their site is enclosed
7 and they're providing that security for, that access
8 control for you, access control is more than just the
9 key, the vehicle to be started or not. You can solve
10 that a lot of ways. You can meet the requirement --

11 MR. SLACK: We've been told that access
12 control is our responsibility as a licensee.

13 MS. BAGLEY: It is your responsibility.

14 MR. SLACK: And we can't delegate that to
15 someone else.

16 MS. BAGLEY: I agree and again, I'd like
17 to further discuss it because I can't imagine that you
18 would leave a \$50,000 truck parked in somebody's lot
19 with the keys in it and not have reasonable assurance
20 from them that they were protecting your property.

21 MR. SLACK: No, this isn't in a lot. This
22 is on a refinery at an operating unit.

23 MS. BAGLEY: Again, I'm not familiar with
24 refineries so I'm not sure if there's access to the
25 site, what kind of control. Do they check trucks

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1 going off, well they know that driver has access to
2 that truck. You know, access control is more than
3 just keys in a vehicle.

4 MR. SLACK: But we would ask again that
5 the NRC consider it and see if we can get some relief.

6 MR. RAKOVAN: Thank you for that. Please.

7 MR. PITTS: I have two comments, one on
8 the site here for portable and mobile devices. Is
9 there going to be something in the rule about, right
10 now we have this order or this same rule requirement
11 for portable -- but it also has the out for licensee
12 if they have constant surveillance on the vehicle,
13 that they don't have to be implementing this. Is the
14 NRC going to put the same out in the rule?

15 MS. BAGLEY: What we're looking for is
16 your recommendation.

17 MR. PITTS: Right now the current way the
18 rule reads in the state of Wisconsin, we allow the
19 licensee to have that out. If they're going to be
20 under, if the devices are going to be under constant
21 control and surveillance by the licensee, then they're
22 allowed to not have two physical controls. They're
23 allowed to just have it in their normal vehicle, but
24 it must be under their constant control and
25 surveillance.

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1 The other comment I have is under, and
2 actually this is back under notifications slide, under
3 number two it says if the shipment does not arrive at
4 the expected arrival time, initiate an investigation
5 to find it for Category 1 or 2 sources. I would
6 encourage the NRC to look at putting an exact time
7 frame into the rule, the new rule. This has led to
8 quite a bit of confusion within the licensees for our
9 other inspections that we've been doing.

10 MR. RAKOVAN: Thank you for that input.
11 Any other discussion on any of the requirements that
12 we went over? And obviously, this isn't going to be
13 your last time that you can have input into this.

14 MS. BAGLEY: Lance, can I --

15 MR. RAKOVAN: Susan?

16 MS. BAGLEY: -- ask a question for
17 clarification? So in the instance that you gave about
18 the two physical controls, the radiographer, for
19 instance, would travel to the site, do the job and
20 travel back to a location where then the material is
21 secured appropriately. But because he's only going to
22 the site for a certain amount of time, he doesn't have
23 to outfit his truck with this extra security because
24 he's going to use it and he's never going to be, it's
25 never going to be out of his control. Is that right?

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1 MR. RAKOVAN: For the record, yes, that's
2 correct. Hold on, clarification necessary apparently.

3 MR. PITTS: To clarify your response, we
4 have a licensee that actually does this. They do have
5 two physical, independent physical controls on the
6 truck. However, they don't have the alarm feature on
7 the truck. But you're correct in the fact that they
8 do, they take it from their home location, they go
9 immediately to the site, they use it, they come
10 immediately back. They don't stop any place in
11 between.

12 MS. BAGLEY: Right. So the immediately
13 detect unauthorized access would be at the home
14 station when the vehicle is unmanned, basically.

15 MR. PITTS: Yeah, the home, the location
16 where, the storage location or the vault, the vault,
17 yeah, the vault location is --

18 MS. BAGLEY: Unmanned, okay.

19 MR. PITTS: Yeah.

20 MS. BAGLEY: Okay, thank you.

21 MR. RAKOVAN: Any other discussion on the
22 requirements at this time? All right, Cheryl?

23 MS. ROGERS: Cheryl Rogers again. This
24 goes back to the verification and I'm just racking my
25 brains here trying to figure out for verification for

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1 that temp job site what a Category 1 source would be
2 that would be used at a temp job site.

3 MS. GIANTELLI: Give me a moment. We're
4 not sure of that either. Our experience has been you
5 don't bring Cat 1 sources to temp sites, but we
6 wanted, we were thinking in terms of if it ever
7 occurred, we had something in place to handle that
8 contingency. So it's along those lines that if it
9 could occur, maybe we should have a provision for it
10 in the requirement.

11 MR. RAKOVAN: Yeah, come on, sorry. I'm
12 going to make you.

13 MR. PITTS: I was confused like Cheryl
14 with that same thing, but I think Gary offered, let me
15 get back to my notes here, I think Gary offered a
16 valid point there when he said that it's the transfer
17 of material not the transport of material and that was
18 the intent. And if that's the case, then it makes
19 more sense. But if it was the transport of material,
20 then that statement there doesn't make a whole lot of
21 sense at all.

22 MR. PURDY: Right, this was for the
23 transfer of material, verifying an address that you
24 haven't seen essentially. It goes along with the
25 unusual purchase.

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1 MS. BAGLEY: Right, so if a larger company
2 set up a temporary work site and was ordering sources
3 for several radiography cameras at the same time and
4 having them delivered to one location that's not their
5 normal location, is that the kind of thing we're
6 talking about Gary? We're just trying to cover --

7 MR. PURDY: I think as Adelaide was saying
8 we're covering bases, but also it's an address
9 verification on an unusual address that you haven't
10 seen before for the Category 1 materials, not
11 necessarily as a radiographer job site but also the,
12 a different address. If you've been shipping to the
13 same address for all these years and all of a sudden
14 the address changes, is that the correct address for
15 use.

16 MR. CALDWELL: I also wanted to go over
17 here a little bit. These are our thoughts and then
18 we're looking for your input on these thoughts. This
19 is just a framework. The other thing as we're doing
20 this rule, as you're probably aware it takes two years
21 to get a rule through the normal process, the normal
22 process. Okay so you can look at these rules and say
23 this is what you're going to be living with the next
24 10, 15, 20 years. That was the way, it was not
25 uncommon.

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1 So we want to make sure that we're looking
2 a little bit ahead of what's going on and I don't know
3 of any Cat 1 materials that have been on a temporary
4 job site, but if that's a possibility in the long term
5 and we can cover it right now, then let's do it. If
6 you know of other things that should be covered and
7 you're thinking about it long term and it can be
8 incorporated into this rule, let's look at it. This
9 rule we're going to be living with for a long time the
10 way the process works, so let's try to do it right the
11 first time.

12 MR. RAKOVAN: Thanks Bob. Any further
13 discussion on the requirements? Before we move on,
14 we've got a couple additional questions that we wanted
15 to throw out there just to see if we could facilitate
16 any discussion.

17 MR. SLACK: Bob Slack, Conam Inspection.
18 To Bob's point, is it the intention of the NRC to take
19 the IC order and to make it part of the rule?

20 MR. CALDWELL: The IC orders are and the
21 other orders are all things that we would expect, that
22 we could leave right now, provide us adequate
23 assurance of the common defense and security of this
24 nation. So if there's something in there that needs
25 to be changed, I'd be interested in it.

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1 That is not the sole reason for this rule
2 making. This rule making is to take a look at the
3 orders that have been in place. This is to take a
4 look at all the things that we've learned, maybe,
5 during this process. This is to take an account of
6 things that we think there are going to be in the
7 future. These take in account the IEA Code of Conduct
8 activities. This is a full rule making for all
9 aspects of the radiological material in quantities of
10 concern transportation.

11 So as to our intent, right now we have the
12 regulations and then we have the orders. Our intent
13 is to get the regulations up to where they need to be.
14 Right now my gut reaction is that the orders are
15 where, as protecting us. Are those the right orders,
16 are they the only orders? That's what we're here for.
17 It's our rule, not the NRC's. It's the public's and
18 the NRC's and the stakeholder's rule, so we're all,
19 we're starting early so we're all involved with this.

20 MR. SLACK: So if the orders are where we
21 want to be and there aren't changes in the orders
22 other than the additions that we're considering today,
23 will the order be included as part of the rule?

24 MS. GIANTELLI: The orders contain
25 specific requirements, We're going to, the rule is

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1 going to be, generally applicable requirements,
2 requirements that you could apply to any licensee not
3 just certain categories of licensees, so.

4 MR. SLACK: So is that a yes or a no?

5 MS. GIANTELLI: If the concepts, yes, the
6 concepts of IC's will be pulled into the rule.

7 MR. SLACK: Thank you.

8 MR. RAKOVAN: Anything else at this point?
9 Cheryl, why not? Cheryl, come on.

10 MS. ROGERS: Cheryl Rogers. This has to
11 do with the casual stops for the drivers and I think
12 that's a, I think this is a vulnerability that needs
13 to be addressed.

14 I know that on our end when we're
15 receiving, or our licensee is receiving a Cat 1
16 shipment, we would prefer they didn't show up at 9:00
17 o'clock at night. We would like the shipment to show
18 up at 8:00 in the morning and whatever needs to
19 happen, the sources offloaded, exchanged and, you
20 know, gotten out of there. If, sometimes the
21 shipment, you know, they get ahead of schedule and
22 they have to burn some time somewhere.

23 So I guess I'm suggesting that possibly,
24 I understand no casual stops in the negative but,
25 perhaps you should put in if you do have to stop

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1 somewhere, what would a planned stop be.

2 MS. BAGLEY: Thank you.

3 MR. RAKOVAN: One more time? Okay, I
4 think we had a couple extra questions that we were
5 going to go to.

6 MS. BAGLEY: Yes, we specifically want to
7 seek information from you and this is the first area.
8 Adelaide will, she'll take it from the table --

9 MS. GIANTELLI: Okay, as Susan said, these
10 are questions that we're specifically trying to gather
11 some information on. The first question, as Bob's
12 been saying throughout his presentation, we haven't
13 made any final decisions and we're seeking input on
14 this. Our thoughts are where should we revise the
15 regulations? Our initial thoughts are logically it
16 belongs either in part 26 --

17 MS. BAGLEY: 20.

18 MS. GIANTELLI: I'm sorry, 20. Excuse me.
19 Absolutely wrong use to refer to 26, 10 CFR Part 20,
20 or 10 CFR Part 73 or if there's another area of the
21 regulation that you think it should be worked into.
22 Any comments? Any opinions?

23 MR. DORUFF: Mark Doruff, Council on
24 Radionuclides and Radiopharmaceuticals. One of the
25 potential serious concerns that we, that the industry

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1 would have would be how consistently these
2 requirements would be regulated and enforced from one
3 state to another. And with respect to our, the state
4 representatives here, I wonder if it wouldn't be
5 worthwhile to consider in collaboration with the
6 Department of Transportation, and it might be more
7 appropriate to regulate these requirements under 49
8 CFR, is to avoid any risk of having, the agreement
9 states establish their own requirements.

10 Most of the or I would say all of the
11 commercial operations that are impacted by these
12 regulations, they don't operate within one state but
13 operate throughout most of the states. And without,
14 with regulation being subject to individual state
15 requirements that may be more rigorous than the ones
16 that NRC is working to develop here, there is
17 potential for inconsistency.

18 And that's where, again, I would like to
19 go back to the point I made initially that there needs
20 to be strong collaboration between NRC and DOT as well
21 as the DHS to make sure that, again, we don't
22 duplicate any existing regulations and we come up with
23 regulations that are consistent and achieve the end
24 result that we all desire. That is, consistent
25 security of these quantities of concern.

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1 MR. RAKOVAN: Thank you.

2 MR. KILLAR: Felix Killar, Nuclear Energy
3 Institute. It would seem like a simple answer or at
4 least when you first look at it, you think that part
5 73 because you're talking about the security of the
6 material is the appropriate place to put that. And
7 from my perspective that was the appropriate place to
8 put it.

9 However, when you start dealing with the
10 agreement states, then you start to run into issues
11 and that when you start talking about the, I forget
12 what the terminology, appropriate terminology is for
13 defense of the country and protection of the country
14 and things like that, that is not something that the
15 NRC has seen it to the agreement states. And the only
16 thing that they exceeded to the agreement states is
17 radiation protection levels, which would be part 20.

18 So it's not a simple answer, but it's
19 things that the NRC has to take into consideration.
20 And as they take into consideration whether it's under
21 part 20 or 73, is actually enforcement as well because
22 as I mentioned earlier when you start talking about
23 the number of licensees that are involved in this
24 process, the vast majority of the licensees dealing
25 with radioactive material of concern are licensed by

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1 the agreement states. And so if the agreement states
2 have enforcement authority and that enforcement
3 authority is limited to radiation protection and not
4 the protection of the country, how are the agreement
5 states supposed to implement this.

6 So there's a lot of ramifications that
7 need to be taken into consideration. But from my
8 perspective, this is a security issue rather than a
9 radiation protection issue.

10 The other aspect of it, and going back to
11 the agreement states, is that you get into the
12 question of compatibility, strict compatibility for
13 agreement state regulations with the NRC regulations
14 and dealing once again with security versus radiation
15 protection, does compatibility on those apply as well.

16 So it's not a simple thing but there's a
17 number of things you guys got to look at. I'm sure
18 your attorneys will look at this for you.

19 MR. RAKOVAN: Further discussion on this
20 question? Okay, let's go ahead and move on to the
21 next one.

22 MS. GIANTELLI: All right. This alludes
23 a little bit to what Felix was bringing up, and this
24 isn't quite worded correctly. But what we're seeking
25 input on is how much involvement should the states

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1 have in our process, in the NRC's process? Should the
2 NRC allow the states to compel compliance with
3 security requirements or should the NRC maintain sole
4 responsibility? And that's something we're trying to
5 gather some input on.

6 MR. RAKOVAN: Any discussion on this one?

7 MR. SLACK: Bob Slack, Conam Inspection.
8 With all due respect to the state representatives,
9 what we are finding with the compliance to the IC
10 orders has been extremely, well, on the part of the
11 state it's been extremely subjective. If the NRC
12 maintains sole ownership of this, then I believe at
13 least our industry, will not incur the same
14 difficulties as we have with the IC and the states.

15 MR. RAKOVAN: Thank you. Further reaction
16 to this one? Okay.

17 MS. GIANTELLI: Okay, the final question
18 goes to a petition that we received from the state of
19 Washington. About a year ago we received a petition
20 from the state of Washington requesting that we
21 require GPS tracking on all vehicles carrying portable
22 and mobile devices.

23 So the question is, it's a straight survey
24 question. We're trying to ascertain what technology
25 is being used by licensees. Are they using GPS radio

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1 frequency indicating devices as an accountant based
2 system. We're not interested in how it's being used,
3 just the technology, the basis of the technology
4 that's being used. And we don't need to know what
5 setup you have or anything like that. It is just what
6 is the basic technology being used.

7 MR. RAKOVAN: Does anyone want to speak to
8 that?

9 MS. GIANTELLI: I'm going to add one more
10 thing. And if the states are seeing one particular
11 technology being used, if they could tell us what they
12 think is being used more often than not or which ones
13 are being used.

14 MR. PITTS: Andrew Pitts with Alpha
15 Neutronics in Houston. We have some experience in
16 this that we actually manufacture tracking equipment.
17 But I can tell you it's across the board what people
18 are using. There are some deficiencies with some of
19 the systems out there. GPS wise, you're mainly
20 tracking a vehicle, but you can monitor the radiation
21 in that vehicle and do both at the same time.

22 So there are many advantages to using the
23 GPS. Whatever type of communications you have whether
24 it's satellite or cellular, there are offsets in the
25 amount of information that you, the company in

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1 particular would want and there are many ways to
2 satisfy many DOT, Coast Guard, just pretty much all
3 the agencies whether they're overlapping or not.

4 And we're finding that companies are able
5 to satisfy several agencies on the likes of the GPS
6 tracking that offset some of the expenses of the
7 initial investment of it, but it also satisfies
8 several agencies at the same time and gives the
9 company more control where they need it, whether it's
10 access control or overnights stays or what not.

11 There's just, on that end of it, there's
12 just quite a few GPS technologies and the technology
13 is getting even better that smaller packages are being
14 trackable even through FedEx and UPS. So not only do
15 you have their system, but you could tell where it is
16 along the route. The technology is getting that good.
17 Thank you.

18 MR. RAKOVAN: Thank you. Any other
19 reaction? Yes, Felix?

20 MR. KILLAR: Felix Killar, Nuclear Energy
21 Institute. Actually, there is a number of devices
22 that are currently being used for tracking vehicles.
23 Vehicles have been tracked for some time, typically
24 your GPS type devices. There are some that are being
25 used for packages. The only issue is with packages is

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1 that you have to have some type of battery, something
2 along that line, and so you do have a limited life of
3 the tracking device on that package. The device --
4 has gotten better so the life of the tracking device
5 on the packages have gotten better as well, but there
6 are still some limitations.

7 I'm not familiar with anything that's
8 being used for tracking sources. It's difficult to do
9 because when you start getting down to the pencil
10 sources and stuff, your device is bigger than your
11 source is and you can't put it in a source holder or
12 things on that line.

13 The one thing I do want to point out,
14 though, is that there are a number of government
15 programs right now for doing things along these lines
16 and I would like the NRC to get more involved with
17 those programs and not get out ahead of those programs
18 and dictate technology or require technology that's
19 inconsistent with the other technologies being applied
20 in the other government agencies.

21 The last thing I want to point out is that
22 there has been some problems with these type of
23 devices, particularly with the railroads. The
24 railroads are very particular about what shows up on
25 their railroad cars and if they see some type of an

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1 antenna sticking up or what have you, they're either
2 likely to hold the whole shipment while they find out
3 what that is or they'll strip it off and throw it in
4 the trash and let the package go on without it.

5 And so we do need to have consistency
6 across the modal mechanisms to insure that whatever
7 devices are used are recognized by all the various
8 entities as using it.

9 MR. RAKOVAN: Thank you. Any other
10 discussion on this question? Okay. Adelaide, are you
11 going to talk about the path forward from here?

12 MS. GIANTELLI: Yes. Do you have the
13 other --

14 MR. RAKOVAN: Yes, of course.

15 MR. HUJ: I'm just trying to form my
16 thoughts.

17 MR. RAKOVAN: Okay. All right, are they
18 properly gelled? Okay.

19 MR. HUJ: Jason Huj, state of Wisconsin.
20 I just wanted to discuss, the IC orders, on the
21 additional question. The IC orders that were issued
22 by the NRC were very performance based and not very
23 prescriptive at all, whereas other regulatory
24 requirements in 10 C are very prescriptive as we know.
25 And that difference has led to many of the states

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1 enforcing the IC orders in a different method.

2 I would encourage that if the NRC is going
3 to have these requirements under public health and
4 safety that they be more prescriptive, which will
5 reduce the amount of differences amongst the states.

6 MR. RAKOVAN: Any other discussion on any
7 of the topics today before we kind of move along?
8 Okay, Adelaide?

9 MS. GIANTELLI: Okay, our path forward now
10 is we're continuing on these meetings. We have
11 another two meetings coming up. One on Thursday in
12 Oakland, California and then we have a meeting next
13 week at our headquarters offices on Wednesday, January
14 23rd.

15 And we'll be accepting comments up until
16 February 8th, 2008. You can provide comments after
17 February 8th, but we can't assure that it will be
18 considered in our final tech basis. Any comment that
19 we receive up until February 8th will definitely be
20 considered part of our tech basis. So now the
21 technical basis, what we're doing now is developing a
22 document that will be used internally to recommend
23 what revisions or additions need to be put into our
24 regulations. And that document we're planning to
25 complete in Spring 2008.

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1 After that document is completed, that's
2 going to go through the NRC. It's going to be used to
3 prepare the basis for a draft rule making. And again,
4 that draft rule making will most likely be published
5 next Spring 2008 and it will be again open for public
6 comment. And again, we'll receive comments and form
7 the rule with those comments and get to a final rule
8 making stage.

9 And I should go back and say for both
10 draft rule making and the final rule making, those
11 rule makings will go up to our commission for review
12 and approval prior to issuance into the -- and then
13 our expected date for the final rule is 2010.

14 Now here's -- do you want to go through
15 that Lance, or should I?

16 MR. RAKOVAN: Go ahead. You're on a roll.

17 MS. GIANTELLI: We have transcripts of the
18 meetings so any comments we receive during the meeting
19 we have them verbatim. You can also provide your
20 comments on that NRC Form 659, the, what's that,
21 Public Meeting --

22 MR. RAKOVAN: Public Meeting Feedback
23 Form.

24 MS. GIANTELLI: The other method is by e-
25 mail to nrcrep@nrc.gov. And we are encouraging

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1 written comments so we can make sure we can capture
2 all your comments. Or you can send it by snail mail
3 to our Chief, Rules and Directives Branch and the
4 address is written here.

5 MR. RAKOVAN: And again, we're asking for
6 these by February 8th?

7 MS. GIANTELLI: Yes.

8 MR. CALDWELL: We really do want to
9 encourage your input into this. This is going out to
10 the, to public meetings for the technical basis. It's
11 not something the NRC ordinarily does. Normally you
12 would get this process, get into the rule making
13 process after there's already been a proposed rule
14 that the commission has already looked at.

15 We're starting this early specifically
16 because we know there's a lot of different and a lot
17 of varied views on how these should be implemented,
18 how they have been implemented and which way we need
19 to go. So this is a, quite frankly, rather unique
20 opportunity to get in your thoughts early, even if
21 it's just taking these slides, changing, crossing out,
22 you know, in verification, line out number one and put
23 in your own number one and then provide some items on
24 how you think that should be implemented. Even that's
25 a great deal of help. Anything that we can get from

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1 you that provides us more ability to provide a
2 complete technical basis on where we need to change
3 the regulations is greatly appreciated.

4 Right now this is, everybody is involved
5 and it's something we're going to live with for a long
6 time. So please, take a look at it. Use the meeting
7 form. Actually, if you give us meeting forms now
8 we'll be able to do some of that, do any alterations
9 for our next meeting in Oakland and the follow on
10 meeting in Washington, D.C., so we're interested in
11 any feedback on that. And obviously, I'm not going
12 anywhere. I'm going to sit here for a little while,
13 so please.

14 MR. RAKOVAN: Yes, I just want to thank
15 everybody for making this a productive meeting,
16 especially those who seem like they were doing laps
17 coming up here to use the mike to make sure that we
18 had it on the transcript.

19 Again, as Bob said, we're going to be
20 sticking around so if you have any additional
21 discussion, clarification or comments that you want to
22 make after the meeting, please approach one of our
23 speakers today and hopefully, they can either discuss
24 the matter with you or point you in the right
25 direction.

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1 Do we have a closing question or comment?
2 Felix, I'm sorry, I'm going to have to ask you, one
3 more lap.

4 MR. KILLAR: Felix Killar, Nuclear Energy
5 Institute. I just wanted to build on some of my
6 opening comments at the beginning and I just wanted to
7 make sure I had an opportunity to do that.

8 Basically, going back to my opening
9 comments, as you pointed out Adelaide, this is a
10 shared responsibility between the DOT and the NRC.
11 And the DOT has implemented regulations for
12 transportation of radioactive material and all
13 hazardous materials under 49 CFR 172.800.

14 The issue, though, that we have between
15 the NRC and the DOT regulations is that the NRC
16 regulations are very deterministic. The DOT
17 regulations are risk based and a graduated, graded
18 type approach where the NRC's are basically, you hit
19 these thresholds and bang, you've got to do this,
20 where with the DOT regulations you do a risk
21 assessment, a risk analysis and then you make a
22 determination what's the appropriate level of security
23 that's required for. And that's why we think it's
24 very important that the NRC and DOT work together.

25 Additionally, the one thing that we feel

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1 is that the NRC is misinterpreting on purpose, the IEA
2 Code of Conduct. As you're aware, the Code of Conduct
3 was written up for sealed sources and now you're
4 regulating both sealed and unsealed sources because
5 you do not differentiate. And when you do that, you
6 basically go against what the code of conduct was
7 trying to do because what happens by having it cover
8 basically unsealed sources, it picks up all these
9 materials.

10 For instance, a reactor vessel head that's
11 got contaminated with enough Cobalt-60 or Cesium to
12 fall underneath the regulations now has to meet all
13 these regulations, but that's certainly not the intent
14 of the Code of Conduct. Similar, if you have a resin
15 shipping going from a spent fuel pool, that was not
16 intended to be covered under Code of Conduct because
17 it's a very dispersed amount of radioactivity
18 throughout there, but when you add up the total
19 quantity, yes, it falls under these regulations.

20 And so the NRC needs to really think about
21 how they interpret this and go back and look at some
22 type of maybe concentration limits or something along
23 that line. The other thing is that, and I think we've
24 touched on it a little bit, is that the NRC's
25 responsibility while on the road is really DOT's

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1 responsibility. DOT, in the memorandum of
2 understanding between DOT and the NRC, did cede to the
3 NRC responsibility for security for spent fuel, but it
4 did not cede responsibility for any of the other
5 radioactive material.

6 And so to the extent the NRC is
7 overstepping its regulatory authority by putting the
8 regulations on here dealing with the transportation
9 while it's on the road, they need to go back and work
10 with the DOT to get those things clarified. And I
11 guess that's the crux of my comments.

12 MR. RAKOVAN: Thank you. Any additional
13 closing comments?

14 MS. PELKE: I just have a question.

15 MR. RAKOVAN: Patty, you need to come up.
16 No really.

17 MS. GIANTELLI: The slides, if they're not
18 already available on the website, they will be
19 available.

20 MR. CALDWELL: They're on the website.

21 MS. GIANTELLI: Oh, they are on the
22 website?

23 MR. RAKOVAN: They're on the website.

24 MS. GIANTELLI: It was something I did on
25 Friday before I left and wasn't sure if it was

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1 completed today or not.

2 MR. RAKOVAN: All right. Seeing no one
3 else getting up or any other hands, oh, I see a hand.
4 Just in under the mark there.

5 MR. DORUFF: Mark Doruff, Council on
6 Radionuclides and Radiopharmaceuticals. One closing
7 comment, again, I just would like to encourage you to
8 engage the Nuclear Sector Coordinating Council,
9 Radionuclides Subsector. We have done, there are
10 various different working groups that are working with
11 the GCC and one specifically dealing with
12 transportation.

13 So we have covered a lot of this ground
14 already and some of my, some of the colleagues of mine
15 that are in the NFCCR will be at the next two meetings
16 and I'm sure they may repeat some of my comments.

17 But one general comment on their behalf is
18 you may want to consider some of the work already
19 done, some of the input already provided and that
20 could be very helpful in putting some specificity and
21 maybe making some revisions to some of the
22 requirements we discussed today.

23 Thanks, and thanks very much for giving us
24 all this opportunity to provide input on the process.

25 MR. RAKOVAN: Thank you. All right, I'm

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1 going to give a really long pause now. Okay, not so
2 long.

3 Bob, any other closing words?

4 MR. CALDWELL: Just thank you all very
5 much for coming. Thank you very much for your
6 comments. We're open to your thoughts and your bases.
7 That helps me out immensely, but thank you very much.

8 (Whereupon, at 3:00 p.m. the meeting was
9 adjourned.)

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