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**NUCLEAR REGULATORY COMMISSION**

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Information Collection Public Meeting

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

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PUBLIC MEETING

SODIUM IODINE I-131 PATIENT RELEASE

INFORMATION COLLECTION

+ + + + +

MONDAY

DECEMBER 14, 2015

+ + + + +

ROCKVILLE, MARYLAND

+ + + + +

The Public Meeting convened at the Nuclear Regulatory Commission, Two White Flint North, Room T2B1, 11545 Rockville Pike, at 2:19 p.m., Gene Carpenter, Facilitator, presiding.

STAFF PRESENT:

DOUGLAS BOLLOCK, Chief, Materials Safety and Events Assessment Branch

MICHAEL FULLER, Leader, Medical Radiation Safety Team

DONNA-BETH HOWE, Ph.D., Senior Health Physicist, Medical Radiation Safety Team

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GENE CARPENTER, NMSS, Facilitator

MARYANN ABOGUNDE, NMSS/MSTR/MSEB\*

ASHLEY COCKERHAM, NMSS/MSTR/MSEB\*

SAID DAIBES, Ph.D., NMSS/MSTR/MSEB

SOPHIE HOLIDAY, NMSS/MSTR/MSEB\*

GRETCHEN RIVERA-CAPELLA, NMSS/MSTR/MSEB

ALSO PRESENT:

PETER CRANE, *unaffiliated\**

LINDA CROKER, *unknown\**

TERESA FISHER, National Institutes of Health

BILL IRWIN, MD Anderson Cancer Center\*

WILLIAM LORENZINE, *unknown\**

ERIC MUNGER, National Institutes of Health

CAROL MARCUS, David Geffen School of Medicine\*

LAURA WEIL, Advisory Committee on the Medical  
uses of Isotopes\*

MIKE WELLING, Virginia Department of Health\*

PAT ZANZONICO, Memorial Sloan-Kettering Cancer\*  
Center

\*Present via telephone

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

2:19 p.m.

1  
2  
3 MR. CARPENTER: Thank you very much,  
4 Operator.

5 Good afternoon. This is Gene Carpenter.  
6 I am an agency facilitator with the U.S. Nuclear  
7 Regulatory Commission.

8 My apologies for the delay in starting the  
9 meeting today.

10 Also with me is Dr. Donna-Beth Howe, who  
11 will be giving a presentation.

12 This is a meeting for sodium iodine I-131  
13 Patient Release Information Collection. What we are  
14 looking for here is to give you, the listeners, an  
15 overview of the various materials that have been put out  
16 in The Federal Register and, also, to answer questions  
17 on how to provide information back for the information  
18 collection portion of it and, also, any other questions  
19 that you might have.

20 This is an informational meeting. It is  
21 not intended to actually be collecting comments on the  
22 material that has been presented at this stage. That  
23 information on how to provide those comments will be  
24 given out during the rest of this meeting.

25 We have several members of the public here

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1 in the room. What we will do is Dr. Howe will give a  
2 presentation. We will pause at several points during  
3 the meeting to give the public an opportunity to ask  
4 questions. Again, this is about the information on The  
5 *Federal Register* notice or it is about how to supply the  
6 information. And if you are providing comments back,  
7 we will ask that you utilize the appropriate process for  
8 doing that.

9 For those folks that are here in the room,  
10 if there is -- and this is the administrative portion  
11 of the meeting -- if there is any reason that a fire alarm  
12 or something else goes off, we will pause the meeting,  
13 ask you to follow us out of the room, and we will continue  
14 from there at that point.

15 Okay. At this time I would like to turn the  
16 meeting over to Dr. Donna-Beth Howe.

17 DR. HOWE: Thank you.

18 The first thing is, what sodium iodine-131  
19 treatments are we going to be covering in our  
20 information collection. This is all about the  
21 information collection that we published in The *Federal*  
22 *Register* back on November 14th.

23 So, we are expecting to receive information  
24 back on treatments of either hyperthyroid or thyroid  
25 carcinoma patients. It covers any sodium iodine

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1 treatment that requires in our terms a written  
2 directive, so it is large enough that we want to keep  
3 track of it. So, that is going to be both for  
4 hyperthyroid and thyroid carcinoma.

5 Can you switch it to the next slide?

6 MR. CARPENTER: My apologies, we are still  
7 having some technical difficulties here. Please hold.

8 (Pause.)

9 DR. HOWE: We will just have to proceed  
10 without the slides. If you have got The *Federal*  
11 *Register* notice, you have the information, the basic  
12 information that we are going to be talking about, and  
13 I am just going to be hitting some of the highlights.

14 The next question is, who do we want to  
15 receive information from? We are really trying to get  
16 a very large number and very wide variety of  
17 stakeholders.

18 Something happened to my slides. I had  
19 them this morning. Okay.

20 And so, who are we looking to get  
21 information from? We are looking to get information  
22 from patients. We are looking for our patient advocacy  
23 groups. We are looking for individual physicians. We  
24 are looking for medical facilities that use I-131. We  
25 are looking for the professional organizations, the

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1 agreement states, our ACMUI members, and any other  
2 interested individuals.

3 Most of the questions that we have are about  
4 making information clear and consistent for patients.  
5 So, we really do want to hear the patient perspective  
6 from this.

7 What are we going to be asking for? We are  
8 going to be asking for existing information. So, if you  
9 are a licensee, we are asking you for your procedures  
10 and processes that you already have. If you are a  
11 patient, we are asking you for your experience.

12 So, we are asking for existing information.  
13 We are not asking anybody to generate any new data, new  
14 information, go off and do any research projects. We  
15 are really looking to see what is practical and what  
16 works for you.

17 The information can be provided in the form  
18 of websites and links to websites, in the form of  
19 procedures and processes that you maybe use and that you  
20 recommend for others. And, as I said earlier, it is  
21 going to be your personal experiences, either in your  
22 practice or as a patient.

23 What are we collecting? What information  
24 are we collecting? Well, if you look in The *Federal*  
25 *Register* notice, you will see there are four main

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1 topics. Just in summary, the first one deals with  
2 information that is responsive to patient concerns  
3 about the medical treatment involving the use of I-131.

4 The second point is the information the  
5 physicians use to make decisions on when it is safe to  
6 release I-131 patients. This is kind of the dialog that  
7 we are expecting, that everybody expects between the  
8 physicians or the licensee and the patient to determine,  
9 yes, the patient can be released immediately; no, they  
10 have to be held for a small period of time, or they have  
11 to be held longer.

12 Then, once the patient is getting ready to  
13 be released, it is the radiation safety information that  
14 is to be used by patients once they are released to keep  
15 doses to others as low as possible.

16 Finally, we are looking to see if there is  
17 a brochure that is available for nationwide  
18 distribution that has to do with patient release for  
19 I-131 patients.

20 The next question is, how do you submit  
21 information to NRC? As my facilitator has indicated to  
22 you, we are not collecting information at this point.  
23 We are just trying to answer your questions and clarify  
24 what we wrote in *The Federal Register*.

25 Information can be submitted to us

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1 electronically. In the *Federal Register* you will see  
2 that the electronic information should come to us  
3 through <http://www.regulations.gov>, and then, you have  
4 to search on a specific docket number. That docket  
5 number is very specific to this particular information  
6 collection. The docket number is NRC-2015-0020.

7 You can also mail the NRC, and there is a  
8 mail address. You would send it to Cindy Bladey, Mail  
9 Stop One White Flint North-12H08, U.S. Nuclear  
10 Regulatory Commission, Washington, D.C.  
11 20555- -- well, I don't think you need the extra  
12 numbers. So, you can send information to us either  
13 electronically or by mail.

14 If you have questions, you can send your  
15 questions on the electronic submission to Carol  
16 Gallagher. The telephone number for her is  
17 301-415-3463. That number is also in the *Federal*  
18 *Register*. Or you can email her, and her email address  
19 is [carol.gallagher@nrc.gov](mailto:carol.gallagher@nrc.gov), and that information is  
20 also in The Federal Register.

21 Any technical clarifications or questions  
22 you should send to me. My telephone number is  
23 301-415-7848. Or my email address is Donna-Beth,  
24 D-O-N-N-A hyphen B-E-T-H, period, H-O-W-E @nrc.gov.

25 So, those are the basic elements of how to

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1 submit information, what we are looking for in general  
2 terms, and the fact that we aren't looking for any new  
3 information.

4 Now I will move on to the first of our four  
5 components or parts of our information collection, and  
6 that is the website. The first one I told you about was  
7 where we were looking for information that the patients  
8 would want to have to know about their treatment and what  
9 is ahead for them.

10 So, for the website information, we are  
11 looking for the public and patients to identify websites  
12 that provide potential patients with information on the  
13 radioactive iodine treatment procedures, so the  
14 patients will understand the medical condition, the  
15 reason for the I-131 procedure, the processes, and how  
16 to reduce radiation exposure to others.

17 Now in the *Federal Register* we provided a  
18 list, and the list is suggested topics. It is not  
19 intended to be a complete list, nor is it intended to  
20 be the best list. So, if you are looking through the  
21 *Federal Register*, you will see that every time we  
22 provide a list we ask people, "Is this list correct? Is  
23 there something you would like to see taken off the list?  
24 Is there something you would like to see added to the  
25 list?"

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1           It is clear to us, when you are going to add  
2 something to the list, that you think it would be  
3 beneficial. It would be helpful for us to know, if you  
4 want something taken off of the list, that you tell us  
5 why you think it is not important to be there. It was  
6 our first approximation to give you some suggested  
7 topics.

8           When you are submitting information to us,  
9 what do we want to see? Well, we want to see you  
10 identify a website. But sometimes just identifying a  
11 website is just too big. In other words, if I sent you  
12 to the NRC website, there's lots of information on it  
13 and you might not know exactly how to get to what you  
14 are looking for.

15           So, we would like to have you indicate the  
16 topic that you think the website is going to address and,  
17 also, provide a link to that specific information on the  
18 topic, so that we can go back and look at the information  
19 and we can make it clear for people that are looking at  
20 it later.

21           That completes my initial discussion on the  
22 web.

23           MR. CARPENTER: Thank you, Dr. Howe.

24           We are going to go ahead and take some  
25 questions at this time, if we have any.

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1           Before we do so, I would like to focus  
2 everyone on the *Federal Register* notice that Dr. Howe  
3 referenced on this. That is *Federal Register* Volume  
4 80, No. 220, dated Monday, November 16th, 2015. It  
5 starts on page 70843. If you take a look at the  
6 right-hand column of three, you will see at the bottom  
7 of that addresses. It includes Ms. Gallagher's and,  
8 also, Cindy Bladey from the Office of Administration,  
9 and, also, Dr. Howe on the following page, 70844. So  
10 that, if you did not get a chance to write down the  
11 information that was provided just a moment ago, that  
12 information is available again on page 70843 following  
13 in the *Federal Register*.

14           At this time, I would like to open the floor  
15 to questions. We will start here in the room. Once we  
16 have had a chance to go around the room, then we will  
17 go to the operator.

18           Questions in the room?

19           (No response.)

20           No questions in the room.

21           Operator, any questions online?

22           OPERATOR: Participants on the phone, if  
23 you would like to ask a question at this time, please  
24 press \*1 and record your name.

25           One moment, Speakers, for incoming

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1 questions.

2 MR. CARPENTER: Thank you.

3 OPERATOR: Our first question comes from  
4 Peter Crane.

5 Your line is open.

6 MR. CRANE: Thank you very much. I don't  
7 think I had a question. I thought I was just supposed  
8 to indicate that I wanted to participate in the meeting.  
9 So, I have no question at this time. Thank you very  
10 much.

11 MR. CARPENTER: Thank you.

12 By the way, if anybody on the telephone line  
13 or here in the room wishes to ask a question anonymously,  
14 you do not have to give your name when you indicate with  
15 the \*1.

16 Next question?

17 (No response.)

18 No questions online?

19 OPERATOR: I'm sorry, no questions in the  
20 queue.

21 MR. CARPENTER: Okay. And in that case,  
22 we will go to the next section on the presentation.

23 Dr. Howe?

24 DR. HOWE: Okay. So, the first part of it  
25 in a time sequence was, essentially, once the patient

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1 finds out that they are going to have a treatment and  
2 the information that they want to know.

3 The second part of our information  
4 collection is the patient now knows they are going to  
5 have this procedure and they are working with a  
6 licensee, and the licensee, whether it is the individual  
7 physician or someone at the licensee's site, is talking  
8 to the patient and getting basic information that they  
9 will be using to decide when to release the patient.

10 We have used a header. That is the second  
11 header that you will see in the *Federal Register* notice.  
12 That is patient licensee acknowledgment form and best  
13 practices in making informed decisions on releasing  
14 patients.

15 So, we are looking at the best practices  
16 that are used by individual physicians and licensees  
17 that focus on enhancing the ability to make informed  
18 radiation safety decisions on when to release patients  
19 from their radiation safety control.

20 In this case, you may be following a  
21 national guideline, but you may have to modify it to meet  
22 the situation for your particular practice. And so, we  
23 are interested in how you modify things to meet your  
24 practice and what you think really works well for you  
25 as to getting information from the patients and

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1 releasing them in a timely manner.

2           So, we are asking you to describe the policy  
3 or provide the procedure that provides confidence that  
4 the patients are released at the appropriate time. If  
5 applicable and you have a form that is signed by both  
6 the patient and the licensee that acknowledges that  
7 these topics were covered and understood, then we would  
8 like to see that form, if you have one. We are not  
9 asking anybody to generate a form. We're just saying,  
10 if you've got one, please share it with us.

11           We have given a number of topics that we  
12 think might be topics that are discussed. Once again,  
13 we are saying this is our suggested topics. If you've  
14 got topics you think are much more important, please  
15 tell us that. If you think our topics are not important  
16 at all, then let us know and let us know why you don't  
17 think they are important.

18           We also asked a few timing questions. In  
19 this case, when is the best time to have this discussion  
20 between the licensee and the patient? We are looking  
21 from the patient's perspective and we also want to find  
22 out from the licensee's perspective.

23           We have also asked that patients and other  
24 interested individuals give their perspective on the  
25 topics that they think are important for this discussion

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1 and, again, the timeline. So, that is the general kind  
2 of information that we are asking for.

3 At this point, I can open it up to  
4 questions.

5 MR. CARPENTER: Very good. Thank you, Dr.  
6 Howe.

7 Again, the topics that we are discussing  
8 now are the ones on page 70845 of the *Federal Register*.  
9 It is under the first column, B.

10 Since we went to the room the first time,  
11 we will go to the phones this time. Operator, anyone  
12 on the phones?

13 OPERATOR: Thank you, Speakers. We have  
14 three questions in queue. The next question is from  
15 Linda Croker.

16 You may begin.

17 MS. CROKER: I'm sorry, mine was a little  
18 bit maybe more related to the first section, but I didn't  
19 queue fast enough, I guess.

20 MR. CARPENTER: That's perfectly fine.  
21 Go ahead.

22 MS. CROKER: So, relative to your desire  
23 for suggestions for a website, the concern would be that  
24 there is such a fluid environment. If it gets put into,  
25 say, a rewrite on 1556 or elsewhere, how is that going

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1 to be maintained? Because, you know, websites are  
2 updated very quickly, much more quickly than things  
3 usually are updated by, say, the NRC.

4 DR. HOWE: Our intent is not to put the  
5 website locations in a guidance document. Our intent  
6 is to develop an NRC website that has links to the  
7 information, so that that could be much more fluid and  
8 up-to-date and could be monitored.

9 MR. CARPENTER: Next question?

10 OPERATOR: Our next question comes from  
11 Dr. Carol Marcus.

12 You may begin.

13 DR. MARCUS: Good afternoon. Thank you.  
14 Much of the information that is given to patients is  
15 verbal and is not one-size-fits-all information, but  
16 information that suits the patient's perspective, the  
17 patient's education, the patient's ability to research  
18 anything or even read.

19 And the NRC concept that all of this should  
20 be written down somewhere I think really missed what is  
21 essential, which is a personal approach to each patient,  
22 depending on their ability to use media, ability to  
23 understand. This really cannot be in a  
24 one-size-fits-all document.

25 DR. HOWE: Thank you, Dr. Marcus.

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1 I think we understand that medical practice  
2 is not a one-size-fits-all. We are assuming that, even  
3 if there is not specific information that is repeated  
4 to every patient, but that it is more tailored to the  
5 patient, that there are certain, more or less,  
6 performance guidelines that key the licensee and the  
7 patient to certain discussion items.

8 And so, when we ask for best practices and  
9 procedures, we understand that they may not be written  
10 procedures, but the best practices might be general  
11 guidelines of what kind of things need to be discussed.  
12 And then, we understand that independent decisions are  
13 made based on that dialogue back and forth.

14 So, we do not think there is going to be a  
15 one-size-fits-all. That is one reason many of our  
16 regulations are performance-based. Even though it  
17 sounds like we are looking for prescriptive  
18 information, we understand that we tend to give guidance  
19 in performance-based. And so, if your response would  
20 be in performance-based, then that would be fine.

21 Did I answer your question?

22 DR. MARCUS: Yes.

23 DR. HOWE: Thank you.

24 OPERATOR: Thank you, Speakers.

25 Our next question comes from William

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1 Lorenzine.

2 Your line is now open.

3 MR. LORENZINE: Yes, I wanted to just  
4 clarify specifically what types of therapies or  
5 procedures are you looking to have addressed in this  
6 request. Is it all IRB-related use of I-131 as well as  
7 clinical practice?

8 DR. HOWE: We're looking for clinical  
9 practice with sodium iodine I-131. We're looking for  
10 treatments for hyperthyroidism and for thyroid  
11 carcinoma, treatments that require high enough amounts  
12 of iodine that a written directive has to be developed.

13 And that may be jargon to members of the  
14 general public, but that means that the amount of  
15 activity is specifically written for a patient, so that  
16 we make sure that a patient that is supposed to get a  
17 very small amount doesn't get a very large amount of  
18 sodium iodide.

19 Does that answer your question?

20 MR. LORENZINE: I just want to make sure  
21 it's clear. It does include investigational use of the  
22 I-131 covered under a written directive.

23 DR. HOWE: Covered under a written  
24 directive. But it's not just I-131. It's sodium  
25 iodine I-131. So, there are some iodine-labeled

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1 materials where the iodine stays pretty well bound to  
2 the material, so it doesn't function quite the same way  
3 and it's not used for or you might even block the thyroid  
4 to have the material go somewhere else. So, it is  
5 primarily material that is going to be going to the  
6 thyroid or thyroid-like tissue.

7 MR. LORENZINE: That's very helpful.  
8 Thank you.

9 OPERATOR: There are no other questions in  
10 the queue.

11 MR. CARPENTER: Okay. Thank you,  
12 Operator.

13 In the room?

14 MR. MUNGER: I have one question. My name  
15 is Eric Munger.

16 DR. HOWE: Can you push and make sure  
17 there's a green dot (referring to the microphone)?

18 MR. MUNGER: It is a green dot.

19 DR. HOWE: Thanks.

20 MR. MUNGER: Some of the administrations  
21 are performed on an outpatient basis and some patients  
22 are isolated for a period of time before release. Would  
23 there be any measures for distinguishing the advice that  
24 you would be giving to the patients based on those two  
25 methods of release?

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1           The reason I ask is because a lot of people  
2 who are isolated will do research online and, then, get  
3 nervous when they see the restrictions that are  
4 recommended for those being given outpatient doses.

5           DR. HOWE:    An interesting point.    We  
6 didn't distinguish between the -- and this actually gets  
7 into the next topic, because this particular topic is  
8 making the decision as to whether to release someone  
9 immediately, hold them for a few hours, or isolate them  
10 at the medical facility.

11           But, when we get to the next one, it is the  
12 guidance that you provide the patient once they are  
13 released.    And so, if you have held them for a number  
14 of days and, then, you release them, that guidance is  
15 different than if somebody treats them as an outpatient  
16 and sends them home right away.    And we haven't  
17 specified that you need to clarify which it is.    So,  
18 that was a good question.

19           MR. MUNGER:   I think it is important  
20 because people that are being held will oftentimes ask  
21 about whether or not they should check themselves into  
22 hotels or avoid their family unnecessarily, because  
23 they are reading recommendations that are normally  
24 given to outpatients.

25           DR. HOWE:    Okay.

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1 MR. CARPENTER: Any other questions?

2 (No response.)

3 One more time, any other questions,  
4 Operator, on the line?

5 OPERATOR: We have a question from Peter  
6 Crane.

7 You may begin.

8 MR. CRANE: Yes, please. Part of this  
9 goes back to the previous. How large a dose are we  
10 talking about for a threshold? I know some therapeutic  
11 doses can be as much as 10 millicuries as a diagnostic  
12 dose. I'm sorry.

13 DR. HOWE: Activity. We did not put a  
14 threshold on the activity. I have gotten a few comments  
15 back. One person was concerned that they thought this  
16 covered only the thyroid carcinoma patients, and they  
17 wanted to make sure that we were also addressing the  
18 hyperthyroid patients, as to when it is safe to release  
19 them. The threshold for release is a dose to members  
20 of the public. So, it is not an activity.

21 And I have gotten other information already  
22 from physicians which are covering both hyperthyroid  
23 and thyroid carcinoma patients.

24 So, to answer your question, there is not  
25 an activity cutoff. Well, there is kind of an activity

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1 cutoff. You have to have a written directive. So, it  
2 is not the very small diagnostic test. If you have a  
3 written directive, those are the patients we are looking  
4 for you to give us information on.

5 MR. CRANE: Where does the written  
6 directive kick in for diagnostic doses?

7 DR. HOWE: For diagnostic, it kicks in at  
8 30 microcuries. And the reason it kicks in at 30  
9 microcuries was a very long time ago people had problems  
10 between writing microcuries and millicuries. And so,  
11 we wanted to make sure that people that were getting  
12 microcuries got microcuries and people getting  
13 millicuries got millicuries. And most of the  
14 microcurie diagnostic tests are below 30 microcuries.  
15 So, that was where the line was set for the written  
16 directive.

17 MR. CRANE: Okay. So, in that case, an  
18 awful lot of diagnostic doses for any thyroid carcinoma  
19 patient would be in the written directive bailiwick,  
20 right?

21 DR. HOWE: Some of the initial tests might  
22 be in the microcurie level, but, then, when you get to  
23 whole-body scans, they would be in the written directive  
24 area. And, you know, the licensee can look at what they  
25 are giving and who they are giving it to and the expected

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1 doses to members of the public, to determine whether  
2 they need to provide information, hold them or release  
3 them immediately.

4 MR. CRANE: Okay. If I could just move on  
5 to a couple of other points or questions?

6 One, I take it that it is all right to refer  
7 to international guidelines, things used in other  
8 countries, as guidance?

9 DR. HOWE: Peter, what we are pretty much  
10 looking for at this point is we are looking for people's  
11 individual experience. What is it you are using if you  
12 are a medical facility or a physician to determine when  
13 to release patients? And we are also looking at the  
14 patient's individual experience as to "I was one of  
15 these patients and I thought I had excellent information  
16 given to me and I want to have other people get the same  
17 information." "I thought the information wasn't as  
18 good and I would have liked to have heard more about a  
19 certain area or a certain topic."

20 So, we are not looking for international  
21 standards. We are actually looking for what people are  
22 doing to determine when to release patients and they are  
23 presenting that information to the patients.

24 MR. CRANE: Got it.

25 And finally, two other things. One, the

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1 point was made by a caller about website fluidity. I  
2 got an example of that just this morning as I was looking  
3 for a presentation by a couple of MD Anderson people,  
4 which I thought was excellent, and it had vanished from  
5 the website in the meantime because the particular  
6 organization had updated its site. I have it, but it  
7 is gone. So, things do come and go, and sometimes it  
8 is useful to print things out and send them in whole,  
9 just to guarantee that it is still there when you want  
10 it.

11 Finally, if I could respond to Dr. Marcus'  
12 point; she is quite right that one-size-fits-all is not  
13 a workable model. But I think it is sometimes true that  
14 the people who work for fine institutions -- and I would  
15 put Dr. Marcus' in that category -- don't recognize  
16 that, down at the level where a lot of patients get  
17 treatments, standards are not that high.

18 If I understand correctly what the NRC is  
19 getting at, it is that we want to have some kind of  
20 baseline that can, then, be supplemented by individual  
21 regard for the patient's situation, not that this is to  
22 take the place of individualized discussion that she  
23 thinks is unnecessary. Am I correct in that?

24 DR. HOWE: I think, basically, we are  
25 looking for the individual physician's experience.

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1 And so, if they've got a diverse population, then they  
2 are going to do things a little bit differently than  
3 somebody that has a uniform population. If they've got  
4 a population that doesn't necessarily read English or  
5 speak English, then they are going to do things a little  
6 bit differently. And that is what we are kind of  
7 looking for.

8 MR. CRANE: Okay. Thank you very much on  
9 that.

10 DR. HOWE: You're welcome.

11 MR. CARPENTER: Any other questions on the  
12 line?

13 OPERATOR: We have another question from  
14 Linda Croker.

15 You may begin.

16 MS. CROKER: I just want to get back to your  
17 mentioning of the term "written directive" so many  
18 times. I think, in practice, that that is maybe going  
19 to be confusing because of the fact that in the summary  
20 statement at the beginning of page 70843 it mentions  
21 medical treatment with I-131, and then, in the section  
22 we are talking about right now, Section (b) under the  
23 Licensee and Patient Acknowledgment, it is the  
24 treatment with I-131.

25 And a written directive, as you already

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1 mentioned, goes down to 30 microcuries. So, there is  
2 quite a bit of I-131 use in diagnostics that requires  
3 a written directive that is not treatment. And so, I  
4 believe that this focus is on only the treatment, the  
5 use of I-131 treatment of the patient, not the use of  
6 I-131, though it might require a written directive, in  
7 the diagnostic range. Correct?

8 DR. HOWE: Well, I think the starting point  
9 is that it requires a written directive. The second  
10 point is that patients are released if they can meet  
11 criteria for doses to members of the public that are  
12 covered under the patient release criteria in 35.75.

13 So, you've got both parts going together.  
14 And so, that means a lot of the diagnostic is not going  
15 to rise to the point where you are going to expect to  
16 give 100 millirem to the person that is going to receive  
17 the highest dose. And so, you would not be providing  
18 instructions.

19 So, we are looking at those patients that  
20 have to be released with instructions or have to be held  
21 before they can be released with instructions or with  
22 written, either oral or written instructions. So, both  
23 things come together, and that eliminates many of the  
24 smaller activity procedures.

25 Did I answer your question?

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1 MS. CROKER: Yes. Thank you.

2 OPERATOR: Speakers, I show no other  
3 questions at this time.

4 MR. CARPENTER: Thank you.

5 Okay. Going on to the next session.

6 DR. HOWE: Yes.

7 MR. CARPENTER: I'm sorry. Before you do,  
8 I think we have resolved our technical problems. I hope  
9 at this time that people who are tuned into the webcast  
10 can now see the presentation. If there is anyone who  
11 is on the webcast, if they could so indicate \*1, I  
12 believe it is, that they are seeing slide 13, Best  
13 Practices?

14 (No response.)

15 I guess nobody is on the webcast.

16 Okay. We'll continue on.

17 DR. HOWE: Next slide.

18 The third component is guidance for  
19 released patients. So, in the timeframe, this is the  
20 point at which you are going to be releasing your  
21 patient, whether it is immediately after the treatment  
22 or after you have held them for a few hours or maybe you  
23 have held them in a hospital. And the question is, what  
24 guidance will you provide to them? And the next  
25 question is going to be, at what time is the best time

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1 to provide this guidance?

2 So, if we look at the next slide, we were  
3 asked to provide standardized guidance to reduce the  
4 variability of instructions provided to patients and  
5 eliminate some of the uncertainty in the type of  
6 information provided. That can be one of two forms.  
7 It could be prescriptive, which would be very specific  
8 information. As Dr. Marcus pointed out, that may not  
9 be the most appropriate way of providing guidance  
10 because that would assume one-size-fits-all.

11 So, we have another option, and that is  
12 performance-based guidance. If we go to the  
13 performance-based guidance, then we are going to be  
14 interested in the tools, the methods or means, that the  
15 licensee provides the individual patients so that they  
16 can follow the guidance objectives and they can protect  
17 others.

18 Next slide.

19 So, what are we expecting for information?  
20 If you've got guidance documents that you believe  
21 provide clear instructions for released patients, we  
22 are interested in seeing your guidance documents. We  
23 are interested in patient input as to what those  
24 instructions should look like to them. Were they easy  
25 to understand and follow, and what would have made them

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1 better? And when should the instructions have been  
2 provided?

3 We, once again, have kind of a list in The  
4 Federal Register that again is a suggested list of  
5 topics and questions. We are always asking it in an  
6 open-ended manner, that if you think those topics and  
7 guidance are good, that's fine. If you think something  
8 else should be added to it, tell us and tell us why. If  
9 you think something should be removed, then tell us and  
10 tell us why.

11 Because we want to make sure that our  
12 guidance, however we develop it, is going to hit the real  
13 important points, and we may or may not have included  
14 all of them in our list in The Federal Register. So,  
15 we are interested in that input.

16 Now we can go to questions.

17 MR. CARPENTER: Okay. Very good.

18 For those who are following along in the  
19 *Federal Register*, we are on page 70845, Item (c), center  
20 column, bottom of the page.

21 Start here in the room. Any questions in  
22 the room?

23 (No response.)

24 No questions in the room?

25 On the telephone, please.

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1 OPERATOR: Speakers, we had eight indicate  
2 activity on the webcast.

3 Again, if you would like to ask a question,  
4 please press \*1 and record your name.

5 MR. CARPENTER: Okay. If we have eight  
6 people, go ahead with the first one.

7 OPERATOR: Okay. Our next question comes  
8 from Peter Crane.

9 You may begin.

10 MR. CRANE: I'm sorry. I mean, I'm  
11 getting confused by these instructions. Earlier it  
12 said, if anybody is following on the webcast, please  
13 press \*1, and I did so just to say, yes, it's all coming  
14 through loud and clear. But it doesn't mean I've got  
15 a question.

16 MR. CARPENTER: Okay. Well, thank you  
17 very much for letting us know that you are following it.  
18 I take it that you can see the material on the webcast?

19 (No response.)

20 Dr. Crane?

21 MR. CRANE: Yes.

22 MR. CARPENTER: Okay.

23 MR. CRANE: I can see it.

24 MR. CARPENTER: Okay. Excellent. Thank  
25 you very much.

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1 But you have no other questions at this  
2 time?

3 MR. CRANE: Do I have any questions? No,  
4 I don't. Thank you.

5 MR. CARPENTER: Okay. Thank you very much  
6 for keying back in.

7 The next questioner.

8 OPERATOR: Our next question comes from  
9 Mike Welling.

10 Your line is open.

11 MR. WELLING: No questions. Same comment  
12 as Dr. Crane.

13 MR. CARPENTER: Thank you.

14 OPERATOR: No questions in the queue,  
15 Speakers.

16 MR. CARPENTER: So, no other questions  
17 online?

18 OPERATOR: No questions at the moment.

19 MR. CARPENTER: Thank you very much.

20 Going on to the next section.

21 DR. HOWE: Our next section is probably the  
22 shortest section of all. And that is -- next  
23 slide -- and that is a brochure for nationwide use.

24 The Commission wanted to know if there was  
25 a brochure that explained the radiation safety and

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1 concerns for I-131 patient release and, if there is one,  
2 whether it could be distributed for nationwide use.

3 So, we are asking people if there is such  
4 a brochure, and if there is such a brochure, for them  
5 to please provide us either with a copy or a link if it  
6 is located on a website.

7 And that is our fourth. So, identify the  
8 brochure that you believe provides clear guidance and  
9 provide us with a copy or a link to it.

10 Open for questions.

11 MR. CARPENTER: Okay. No questions in the  
12 room?

13 Operator?

14 OPERATOR: I'm showing no questions over  
15 the phone lines.

16 MR. CARPENTER: Thank you.

17 DR. HOWE: Okay. In the closing  
18 remarks -- next slide -- if you are watching on the  
19 webcast and if you've got your phone on register,  
20 submissions for this information collection are due to  
21 the NRC on February 16th, 2016. You are highly  
22 recommended to get them in before February 16th. If  
23 you're a little bit late, we have discretion as to  
24 whether we take that information or not. So, February  
25 16th is the date for submissions.

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1           This is the first of two public meetings.  
2           The next one is a public workshop where we are expecting  
3           more conversation and dialog between people that are  
4           coming to the workshop or people that are going to be  
5           participating at the workshop through the webcast and  
6           the telephone lines.

7           It is also going to be on patient release.  
8           The purpose for our public meeting today is the *Federal*  
9           *Register* notice has been out for about 30 days. If  
10          you're thinking about it, you might have some questions  
11          you wanted to ask us. Well, thenext public workshop,  
12          which will be January 21st, 2016, it will be all day from  
13          nine o'clock to four o'clock. We will have about an  
14          hour-and-a-half for each one of our major topics. It  
15          will be webcast and there will be a telephone bridge  
16          line. And there will be about an hour-and-a-half for  
17          each one of our major topics at that point. So, it will  
18          be a much longer meeting.

19          Next slide.

20          Once again, I have repeated the information  
21          on who to ask questions. If you've got problems with  
22          your electronic submission, and sometimes people do  
23          have problems with the electronic submissions, then  
24          Carol Gallagher is the one to contact. And I've got the  
25          information on this slide. It is also in the *Federal*

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1       Register notice.

2                   If you want technical clarification or  
3       questions, then I'm the one to contact. My information  
4       is on this slide and it is also in the *Federal Register*  
5       notice.

6                   So, we want to make sure that if you've got  
7       any questions that you get them in, so that you will be  
8       able to submit information.

9                   And a reiteration again of how do you submit  
10       information to the NRC. Electronically, you go onto  
11       the regulations.gov website. You search for our docket  
12       number which is NRC-2015-0020, and you have an  
13       electronic mechanism where they ask you to provide your  
14       comments.

15                   Sometimes that can be frustrating. If you  
16       aren't comfortable with electronic submissions, then  
17       you can always mail information to us, to Cindy Bladey,  
18       Office of Administration, here at the Nuclear  
19       Regulatory Commission. That information is in The  
20       Federal Register, and it is also on this slide.

21                   Are there any other questions?

22                   MR. CARPENTER: Okay. No questions in the  
23       room.

24                   Going to the operator, any questions  
25       online, please?

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1 OPERATOR: We have a follow-up question  
2 from Dr. Carol Marcus, who may begin.

3 DR. MARCUS: Thank you.

4 Donna-Beth, at the time that 35.75 was  
5 being discussed and being worked on, you received the  
6 brochure that the Society of Nuclear Medicine makes  
7 available. Do you still have that?

8 I mean, it is general; it is not  
9 patient-specific, but it certainly covers a lot of the  
10 things you're talking about and is being used, I think,  
11 by many at least Board-certified nuclear medicine  
12 physicians as extra written information to augment  
13 their verbal information to the patient.

14 DR. HOWE: We have a brochure that is much  
15 older than that, that was done I believe in probably the  
16 '87 rule. That was more of a pamphlet to be passed out,  
17 and we put that, I think, on our -- we disseminated that.

18 Then, it may be the Society of Nuclear  
19 Medicine and Molecular Imaging provides us with a  
20 brochure that they believe is good for everybody, and  
21 maybe other groups or individuals that have pamphlets.  
22 So, we are looking for information from whoever has a  
23 pamphlet that they believe would be good, Carol.

24 DR. MARCUS: Okay.

25 MR. CARPENTER: Any other questions

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1 online?

2 OPERATOR: I'm showing no questions in the  
3 queue.

4 MR. CARPENTER: Okay. Seeing none in the  
5 room, barring no other ones on the telephone, I would  
6 like to redirect your attention to the information that  
7 is up on your screen right now. That is, again, who to  
8 contact if you have any additional questions: Carol  
9 Gallagher and Donna-Beth Howe for technical  
10 clarifications.

11 As mentioned earlier, the public meeting on  
12 January 21st is going to be located --

13 DR. HOWE: It's going to be located in  
14 exactly the same room that we're in now and we are going  
15 to have a webcast. And the telephone bridge lines are  
16 going to be exactly the same as the bridge lines we have  
17 now.

18 I will be posting that meeting notice in the  
19 next day or two on the NRC website, so that it will be  
20 available for everyone. And we will publish the  
21 agenda, which will look very similar to the agenda that  
22 you saw for today, but with longer time periods.

23 MR. CARPENTER: And again, the location  
24 for the January 21st is here at the White Flint Complex  
25 in Rockville, Maryland, for those of you who care to

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1 travel. But, as Dr. Howe said, we will have a webcast  
2 and a telephone bridge line for those who opt not to.

3 So, one last time --

4 DR. HOWE: One more point.

5 MR. CARPENTER: I'm sorry.

6 DR. HOWE: In the case of inclement  
7 weather, because one can never predict what is going to  
8 happen in January in D.C., if we have snow or some other  
9 reason that we're not able to come into the office, we  
10 will still hold the meeting via the telephone conference  
11 line because you need to get your information by the 16th  
12 of February and we won't have an opportunity for another  
13 meeting between the 21st of January and the 16th.

14 MR. CARPENTER: And for those of you who  
15 are not here on the East Coast where we are having  
16 spring-like weather, I envy you and your snow. But,  
17 other than that, yes, we always have the challenges of  
18 weather at that time of the year.

19 One last opportunity for questions.  
20 Anyone on the telephone?

21 OPERATOR: We have a question from Sophie.  
22 You may begin.

23 MS. HOLIDAY: Hey, Donna-Beth, I --

24 DR. HOWE: Sophie, you're breaking up.

25 MS. HOLIDAY: Oh. Can you hear me better

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1 now?

2 DR. HOWE: Yes, I can hear you better.

3 MS. HOLIDAY: Okay. I was going to say I  
4 wanted to take the opportunity or to remind you to let  
5 people know that we will have meeting transcripts  
6 available in the event that they weren't able to attend  
7 or they couldn't hear a full portion of the meeting.

8 DR. HOWE: Okay. Thank you, Sophie.  
9 Yes, we will.

10 MS. HOLIDAY: You're welcome.

11 MR. CARPENTER: Okay. Any other  
12 questions?

13 OPERATOR: Yes, we do. We have a second  
14 question in the queue. It comes from Peter Crane.

15 You may begin.

16 MR. CRANE: Yes, please. Just to respond  
17 to Dr. Marcus' point, I think she is referring to the  
18 brochure that was prepared jointly by the SNM and the  
19 NRC and published in 1987. The author of that was the  
20 late Dr. David Becker of Cornell Weill Medical Center.

21 And it was very useful in its time, but that  
22 was in the days of the 30-millicurie rule. And when the  
23 NRC published its 35.75 rule change in 1997, it said that  
24 you could use that, but just adjust.

25 And the question is, if you adjust the times

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1 according to the number of millicuries and so forth,  
2 then the question is, does that really tell licensees  
3 very much; if you have got a 200-millicurie dose and  
4 you've got instructions that are appropriate to a  
5 30-millicurie dose? How do you make the transition?  
6 My own view is that a new and updated brochure of that  
7 obsolete one is long overdue.

8 DR. HOWE: Thank you, Peter. That is  
9 obviously another reason why we are asking for  
10 information collection today to find out what people are  
11 using.

12 MR. CARPENTER: Last call for questions.

13 OPERATOR: One moment, Speakers, for  
14 additional questions from the phone.

15 Our next question comes from Bill Irwin.  
16 Your line is open.

17 MR. IRWIN: Hi. This is Bill Irwin from MD  
18 Anderson Cancer Center.

19 This is more of a comment than a question.  
20 SNMMI has updated procedure guidelines for various  
21 types of procedures, including treatment of thyroid  
22 cancer and hyperthyroidism, which is dated 2012. So,  
23 they have updated that. It is a little more current,  
24 so it may still be a useful document. It is not so  
25 outdated.

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1 DR. HOWE: And we assume that the Society  
2 of Nuclear Medicine, SNMMI, will send us a link or a copy  
3 of that.

4 MR. IRWIN: Yes, the link, if you just go  
5 to their web page and look under the Practice Standards,  
6 it is available for public consumption. There is a link  
7 right there. You've got to drill down just a couple of  
8 levels, but it is there.

9 DR. HOWE: Thank you for your comment.

10 MR. IRWIN: Yes.

11 OPERATOR: Next, Speakers, we have a  
12 follow-up statement from Dr. Carol Marcus.

13 You may begin.

14 DR. MARCUS: Dr. Irwin said what I was  
15 going to say, basically.

16 DR. HOWE: Thank you.

17 OPERATOR: And I'm showing no other  
18 questions in the queue.

19 MR. CARPENTER: No other questions?

20 OPERATOR: No other questions, sir.

21 MR. CARPENTER: Okay. Very good.

22 Okay. At that time, I would like to go  
23 ahead and wrap up the meeting.

24 As was said earlier, we will have a  
25 transcript of the meeting that will be published here

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1 in the very near future.

2 Dr. Howe will be, also, providing  
3 additional information regarding the public meeting on  
4 January 21st. In the meantime, if you do have any  
5 questions regarding electronic submission or any  
6 technical clarifications, the names on the screen,  
7 Carol Gallagher for electronic submission and Dr.  
8 Donna-Beth Howe for technical clarifications, are  
9 available to you.

10 And with that --

11 DR. HOWE: I think we're good.

12 MR. CARPENTER: Yes, with that, we're  
13 good.

14 And I thank everyone for their  
15 participation.

16 I wish all happy holidays and a very happy  
17 2016. Thank you very much, and the meeting is closed.

18 (Whereupon, at 3:11 p.m., the meeting was  
19 adjourned.)

**NEAL R. GROSS**

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