

Official Transcript of Proceedings
NUCLEAR REGULATORY COMMISSION

Title: Public Meeting to Discuss the Office of the
Inspector General Audit Recommendation
Certificate of Compliance Expiration Term

Docket Number: N/A

Location: Rockville, Maryland

Date: April 26, 2018

Work Order No.: NRC-3662

Pages 1-98

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING TO DISCUSS THE OFFICE OF THE
INSPECTOR GENERAL AUDIT RECOMMENDATION CERTIFICATE

OF COMPLIANCE EXPIRATION TERM

+ + + + +

CATEGORY 3 PUBLIC MEETING

+ + + + +

THURSDAY

APRIL 26, 2018

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ROCKVILLE, MARYLAND

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The meeting convened at the Nuclear
Regulatory Commission, Two White Flint North, Room
T2B3, 11545 Rockville Pike, at 1:30 p.m., Torre
Taylor, Moderator, presiding.

NRC STAFF PRESENT:

TORRE TAYLOR, Sr. Project Manager, Spent Fuel
Licensing Branch, Division of Spent Fuel Management,
Office of Nuclear Materials Safety and Safeguards
(NMSS), Moderator

JOHN McKIRGAN, Branch Chief, Spent Fuel

1 Licensing Branch, Division of Spent Fuel Management,
2 NMSS

3 BERNARD WHITE, Sr. Project Manager, Spent Fuel
4 Licensing Branch, Division of Spent Fuel Management,
5 NMSS

6

7 ALSO PRESENT:

8 ALICE CARSON, EnergySolutions

9 MICHAEL CONROY, US Department of Transportation

10 WREN FOWLER, NAC International *

11 ALEKSANDR GELFOND, EnergySolutions *

12 TIMOTHY LLOYD, Westinghouse Electric Company *

13 GLENN MATHUES, TN Americas

14 ROD McCULLUM, Nuclear Energy Institute

15 SCOTT MURRAY, GE Hitachi *

16 LORI PODOLAK, QSA Global *

17 JANET SCHLUETER, Nuclear Energy Institute

18 TONYA SLOMO, Daher/TLI *

19 RANDY STRADER, National Institute of Standards and
20 Technology

21 GERARD Van NOORDENNEN, EnergySolutions

22 PETER VESCOVI, TN Americas *

23

24

25 *Present via telephone

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P R O C E E D I N G S

1:34 p.m.

1
2
3 MS. TAYLOR: Okay. Let's get started
4 then. So, if you could open up the lines. And I'll
5 start the intros.

6 Our moderator went through the process for
7 you on the line. We'll intermittently stop and make
8 sure anyone has any comments or questions, queue in
9 with the moderator. And then she'll know to let you
10 all in.

11 So welcome to our meeting. We do have a
12 court reporter. So I would ask that you identify
13 yourself and your organization for the record on the
14 transcript.

15 I have given him a list of the people I
16 knew were going to be here. So, he'll have the
17 correct spelling and what have you. But if you didn't
18 let me know, be sure and make sure we can get the
19 correct spelling for him.

20 And before we start, I need to inform you
21 of the security requirements. If you're not an NRC
22 employee, you have to be escorted, of course, off
23 whenever you want to leave this floor.

24 Just make sure an NRC employee is with
25 you. So, Bernie or I, depending on who's talking,

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1 there's a gentleman in the back that maybe willing.

2 And at the end of the meeting someone will
3 take you down so you can turn your badge into the
4 guards. And we will have a break. So we'll need to
5 escort you down for that.

6 The purpose of the meeting, we want to
7 discuss the expiration term of the certificates of
8 compliance for transportation packages. The plan is
9 for us to gain some insights from those affected,
10 members of the public.

11 And to develop a regulatory basis for the
12 expiration term. And I'll get into more discussion
13 when we talk about it. But this is related to an
14 Office of Inspector General audit.

15 For those, like I said, the slides are in
16 the back of the room. For those on the phone, they
17 are linked on the meeting notice. I know I've sent
18 them to a couple of people.

19 It's a category three meeting. So, this
20 is held with representatives and non-government
21 organizations, private citizens or interested parties,
22 various businesses or industries, to fully engage them
23 in a discussion of regulatory issues.

24 And we want to maximize the discussions
25 with the public to ensure that their issues and

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1 concerns and presented, understood, and considered by
2 the NRC.

3 If you haven't signed in on the sign in
4 sheet, I appreciate you doing that at some point
5 during the meeting. And then for those on the phone,
6 if you'd send me an email at Torre, T-O-R-R-E
7 .Taylor@NRC.gov. And then I can have a record of who
8 attended and at least a number of people as well.

9 We do like to inform people about our
10 safety culture policy statement. I do have a brochure
11 in the back.

12 We want to make sure we run the meeting
13 and establish and maintain a positive safety culture
14 so that everyone can speak freely, and professionally.
15 And be able to have their say.

16 Please turn off or mute your phones. And
17 restrooms are out the door to the left and the right.
18 You don't need an escort for that. But when we do
19 have a break, if you want to go downstairs to the
20 coffee kiosk or snack shop, we'll have to go down with
21 you.

22 I'll turn the meeting over to John now,
23 and he'll make some opening remarks.

24 MR. McKIRGAN: Great. Thank you Torre.
25 Thanks everybody who is on the line. And thanks to

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1 everyone who is here.

2 I do -- I appreciate very much you all
3 taking your time. I know we're all leading very busy
4 lives. And workload seems to be quite high. And
5 staffing seems to be quite tight.

6 And so I do appreciate you all taking the
7 time to help us out here. And I say that quite
8 specifically, because we do need your help.

9 We are going to talk about the term of --
10 the expiration term for these certificates of
11 compliance for the transportation packages.

12 We're going to need your input to help us
13 construct a meaningful basis for what that term should
14 be. I'll talk in just a minute about the genesis of
15 this activity which came from an Office of Inspector
16 General audit.

17 But principally we really need the input
18 of the impacted community. We sit here at the NRC and
19 we have this practice of issuing these terms for five
20 years.

21 And we really need to get the impacts from
22 you all to understand before we make any decisions, we
23 need to make sure we understand what the drivers are
24 and what the issues are. And so we'll be talking
25 about that a fair bit as we go forward.

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1 So the genesis for this initiative that
2 we're taking to kind of relook at this term really
3 comes from one of Office of Inspector General audits.
4 The OIG here at the NRC serves a very important role.

5 They are yet another kind of independent
6 check on our independent agency. And they
7 periodically look at items across the spectrum of the
8 agency and makes sure we're following our processes or
9 looking for enhancements.

10 And it was just one of those audits that
11 came upon this -- the practice of issuing these
12 certificates for five years.

13 And it was in their independent look at
14 our activities that they came to realize that we had
15 not fully documented, or not well documented our
16 regulatory basis for this staff practice of five
17 years.

18 And they eloquently, and hopefully you all
19 have had a chance to look at the report, they point
20 out that absent that basis, there is no regulatory
21 clarity as to whether that term is appropriate.
22 Whether the term is too short, or too long, or just
23 right.

24 And so they rightly point back to the
25 staff that hey, you guys need to figure this out. And

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1 document it. And communicate it. So, it was a very
2 well thought position.

3 Now, the OIG, they are auditors. They
4 look at our processes and practices. They did not do
5 an in-depth cost benefit analysis. That's certainly
6 not their role. That's certainly our role. And we
7 look for your input.

8 Many of you appreciate that the renewals
9 that we go through for transportation certificates,
10 it's not a very labor intensive activity. It's a
11 relatively simplified activity.

12 Many of the community here know that
13 international organizations do often re-review the
14 entire safety basis when they do renewals. That's not
15 been the practice here at the NRC.

16 We do have a very good safety record. The
17 industry has managed to transport millions of packages
18 every year with a very good safety record.

19 And we need to bear that in mind as we
20 think about this activity. And I'm sorry, I've gone
21 a little off script.

22 Torre has developed a wonderful set of
23 talking points for me. And I've just ad-libbed there
24 a little bit. So my apologies.

25 And we did -- I talked about the OIG, the

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1 OIG audit. If you do look at that report, there were
2 actually a total of four recommendations.

3 Two of them had to do with our Part 72
4 activities. And some of the community here might have
5 both interests in Part 72 and Part 71. And you can
6 look at the OIG report. We're acting on all of those
7 recommendations of course.

8 Today we really want to focus on the Part
9 71. The purpose of our discussions is to get to a
10 basis for this term, this expiration term.

11 I'm going to stay off script for just a
12 moment. This is not transformational. The agency has
13 been talking a lot lately.

14 And there will be more to come about truly
15 transformational activities that the agency needs to
16 undertake to move into the next century. To be
17 adaptive to new technologies.

18 We do want to continue to take advantage
19 of incremental enhancements as we come to them. And
20 this maybe one.

21 But, I didn't want to give any false
22 impression that changing the term on compliance will
23 be a truly transformational item. But we do need to
24 continue to take advantage of opportunities to have
25 incremental efficiencies when we can find them. And

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1 this maybe one.

2 With that I will turn it back over to
3 Torre, I think, if I'm correct. And Torre, you'll
4 forgive me if I pipe in every now and then, because
5 there are a few other things that I -- as I've
6 prepared for this, there's some thoughts that have
7 occurred to me that I want to make sure we get out.

8 And so you'll -- if you'll bear with me as
9 you go through your presentation, that would be
10 fabulous.

11 MS. TAYLOR: Sure.

12 MR. McKIRGAN: And so I'm going to pipe in
13 right now.

14 (Laughter)

15 MR. McKIRGAN: For those at the table, if
16 I could ask you, you have little mics in front of you.
17 And there's a little button that says push.

18 You push it once to turn it on. And you
19 push it again to turn it off.

20 UNKNOWN: Don't demonstrate the turning
21 off the mic.

22 MR. McKIRGAN: Thank you. It was a good
23 demonstration. And so I would ask that you leave it
24 off if you're not speaking.

25 But when you do speak, please turn it on.

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1 They're very good mics. And they will aid our
2 reporter to make sure we get all the comments down.
3 Because we desperately need your input. And so want
4 to thank you all for that.

5 And with that I'll turn it over.

6 MS. TAYLOR: Okay. That's a good point.
7 Make sure my mic's on.

8 So, at time we're just -- generally the
9 outline, we'll go through the OIG report and
10 recommendation at a high level and what our response
11 was, what process we're going to follow to develop the
12 appropriate expiration term and a regulatory basis of
13 that.

14 We'll have a general discussion with some
15 subtopics there. And Bernie will lead that. And I'll
16 go through the next steps in the schedule. You'll be
17 the contacts. And throughout we'll have time for
18 comments and questions and such.

19 So, what we're talking about is an OIG
20 audit back in August 2017. The number is OIG 17-A-21
21 for those on the phone that may not have the slides
22 up. And that's on the public website under the OIG
23 Office page.

24 The objective of the audit was to
25 determine if NRC's processes for issuing the

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1 certificates of compliance and then reviewing the 10
2 CFR part 72.48 changes provide adequate protection for
3 public health safety and the environment.

4 They found, OIG found that our processes
5 for issuing our certificates of compliance are
6 adequate. But they thought opportunities existed for
7 improvement within our internal processes.

8 And they determ -- they want us to
9 determine and provide the basis for an appropriate
10 term for Part 71 certificates of compliance for
11 transportation packages.

12 And then to establish sufficient controls
13 for the 72.48 reviews. I'll go into a little bit more
14 detail under our recommendation discussion.

15 So the recommendations, there were four of
16 them, as I said, conducting the analysis to develop
17 the regulatory and technical basis for the certificate
18 of compliance term for Part 71 packages documents.

19 And communicate to the stakeholders our
20 results in identifying the basis for an appropriate
21 term. The last two are handled by other staff.

22 But it's to establish sufficient internal
23 controls by updating our guidance related to Part
24 72.48 review procedures. And then to establish
25 sufficient internal controls by developing and

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1 implementing training for the review process for the
2 Part 72.48.

3 Our focus is going to be in recommendation
4 one. Recommendation two will follow that once we've
5 developed that basis.

6 So, as a background, I just got the
7 recommendation up there just so you can read it. But,
8 the background is that OIG noted that our regulations
9 are supposed to be clear and risk informed.

10 And they noted that our principals of good
11 regulation states that the regulation should be
12 coherent, logical, and practical. And there needs to
13 be a clear nexus between the regulations and the
14 agency goals and objectives.

15 And a risk informed approach ensures
16 regulatory burdens imposed by an individual regulation
17 or processes appropriate to its importance in
18 protecting public health and safety and the
19 environment.

20 So regarding the term for Part 71
21 certificates of compliance, the OIG found that we're
22 relying on an informal practice used by staff instead
23 of a formal determination.

24 The regulations in Section 71.38 say that
25 each certificate of compliance expires at the end of

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1 the day in the month and year stated on the approved
2 certificate. But Part 71 doesn't set a standard term
3 for the transportation certificate.

4 So the only reference that was found in
5 the audit is our internal guidance. But we didn't
6 have any justification for that term that they could
7 find.

8 So, they said without having the
9 regulatory and technical basis to justify the five-
10 year term that we're imposing a requirement without
11 establishing the importance to safety or the
12 regulatory burden.

13 And since we don't have the basis to
14 support that, it's not clear what the appropriate term
15 should actually be. And they questioned if it should
16 be shorter than five years, we could potentially be
17 risking public health and safety not having it
18 shorter.

19 But they said it could be longer. Because
20 maybe we're imposing a regulatory administrative
21 burden on both parties, staff and the certificate
22 compliance holders and vendors.

23 And so they want us to develop this
24 regulatory basis. And this is part of the first steps
25 with that.

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1 So we are looking for your thoughts about
2 what the appropriate term should be and why. And
3 we'll discuss that in more detail during the general
4 discussion.

5 So, our response back to the OIG was that
6 we would consult with the Department of
7 Transportation. Because they work closely on all this
8 with us as well.

9 And we'll conduct a technical regulatory
10 analysis. And we also committed to considering risk
11 insights from existing studies that have been
12 performed on transportation risks of spent fuel.

13 And that we would solicit stakeholder
14 input. Which is what this meeting is for.

15 So, this is the formal response. Again,
16 we've been through that first bullet already about
17 developing a basis to establish an appropriate term.

18 And we will document the results that will
19 be publically available. And then we'll communicate
20 the results to the stakeholders.

21 So, it will be on our public website. And
22 we'll obviously communicate directly to stakeholders
23 and look at presenting at the Regulatory Conference,
24 the Spent Fuel Regulatory Conference. I guess you all
25 know what it as Reg Con.

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1 And I've listed the existing studies. For
2 reference they're in the slides. I have ML Numbers
3 for this one, 0170. It's not on the public website,
4 but it is publically available.

5 This is a final environmental statement on
6 the transportation of radioactive material by air and
7 other modes. And this was done back in 1977.

8 And again, if anyone would like me to send
9 a link to these risk studies, I can. They're all
10 publically available. And it might be easier then
11 going into ADAMS

12 The next study was a study by Fisher, et
13 al. And this was shipping container response to
14 severe highway and railway accident conditions. This
15 was back in '87.

16 This one can be found on the website. If
17 you just go to the NRC library tab and document
18 collections and the NUREG series. This will be under
19 the NRC contractor section. And they're listed in
20 number order.

21 And then the remaining two, we have
22 NUREG/CR-6672, which we examined. Spent fuel shipment
23 risk estimates. This was done in 2000.

24 And then we have NUREG-2125, which was
25 another study, spent fuel transportation risk

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1 assessment. That was done in January 2014.

2 And again, these are under the document
3 collections and under the NUREG series. Anything with
4 a CR is under the contractor. And any -- well NUREG-
5 2125 is under the NRC staff. They're the ones that
6 fell with that.

7 So as we've discussed, we're going to have
8 this process to develop an appropriate expiration term
9 and a regulatory basis for it. So we have consulted
10 with DOT.

11 We're having this meeting to consult with
12 stakeholders. We'll use the information from the risk
13 studies. And then we'll develop this basis and go
14 from there.

15 And we'll next go into general discussion.
16 But I'd like to see if there's anyone on the phone
17 that has any comments or questions. If you could open
18 the line?

19 OPERATOR: And if you would like to ask a
20 question or make a comment, please press star one and
21 record your name and organization at the prompt.

22 Again, press star one to ask a question or
23 make a comment. Please be sure that your line is
24 unmuted, and record your name and organization, or
25 indicate if you are a member of the public at the

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1 prompt.

2 One moment. Timothy Lloyd with
3 Westinghouse Electric, your line is open.

4 MR. LLOYD: Hi, this is very brief. But
5 Torre, I would certainly love to get the list of
6 references that you're talking about.

7 And if there's a shortened, you know, set
8 of links to get to the things that would be great too.

9 MS. TAYLOR: A link to which one?

10 MR. LLOYD: Well, I mean, you had
11 mentioned the NUREG document.

12 MS. TAYLOR: Right.

13 MR. LLOYD: Which I can find. But also
14 the other OIG documents.

15 MS. TAYLOR: Oh, the OIG document. Okay.

16 MR. LLOYD: Yeah. Thank you.

17 MS. TAYLOR: I'm sorry, I didn't get your
18 name.

19 MR. LLOYD: It's Timothy Lloyd. I'm with
20 Westinghouse Electric. Okay. Tim Lloyd.

21 MS. TAYLOR: Okay. And do you want to --
22 what's the best way to --

23 MR. LLOYD: I've sent you an email
24 already.

25 MS. TAYLOR: Oh, okay. Have your email.

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1 Okay.

2 MR. LLOYD: Yeah.

3 MS. TAYLOR: I'll do that.

4 MR. LLOYD: Thanks.

5 OPERATOR: Next we have Randy Strader with
6 NIST. Your line is open.

7 MR. STRADER: Yes. Hey Torre, this is
8 Randy. I'm in the lobby if you guys -- if somebody
9 could come get me.

10 (Laughter)

11 MS. TAYLOR: Oh my goodness. Okay.

12 MR. MCKIRGAN: I'll go get him.

13 MS. TAYLOR: You'll go get him? Okay.

14 (Laughter)

15 MS. TAYLOR: Yeah. They were supposed to
16 call the backup person to come get people that came a
17 little bit later. Thank you for calling in.

18 MR. STRADER: All right.

19 MS. TAYLOR: Oh my goodness. Poor guy.

20 OPERATOR: Okay. There are no other
21 participants in the queue at this time.

22 MS. TAYLOR: Okay. Thank you. Okay.

23 MR. WHITE: Go ahead, Janet.

24 MS. TAYLOR: Oh, Janet, sorry.

25 MS. SCHLUETER: Yeah. Janet Schlueter

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1 from NEI. This might become more obvious as we talk
2 this through.

3 But a couple of your slides of course
4 discuss the process that you'll use to develop the
5 draft reg basis and tech basis. And it will be
6 discussed at Reg Con.

7 But what I'm not seeing is that is there
8 actually a public comment period associated with the
9 draft versions of those documents?

10 MS. TAYLOR: No. We're taking the
11 comments from this meeting and considering them in the
12 development. And so we're not going to be going out
13 with an FRN for public comment.

14 And that's my understanding of that.

15 MR. WHITE: That's my understanding as
16 well. But we will be -- I'm sorry, this is Bernie
17 White, NRC.

18 We will be taking comments. If you think
19 of something tomorrow, next week, next month, email
20 Torre or I and we'll make sure it gets considered.

21 MS. TAYLOR: Yeah. I was going to -- I
22 have that at the end where if you wanted to submit
23 comments, we could take them.

24 MS. SCHLUETER: Right. Well, we
25 appreciate this opportunity certainly. But, you know,

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1 I don't -- speaking just for myself maybe, I don't
2 think I can make real informed comments other than
3 some general ones that others will probably be chiming
4 in with until I see what the regulator has on paper
5 with regard to a draft technical or regulatory basis.

6 In other words, we're not going to know
7 exactly what information you've compiled and
8 considered to get to that point. So I was just trying
9 to figure out from a process perspective, do
10 stakeholders have another opportunity as you go
11 through this to provide input on those draft
12 documents.

13 Maybe you call can quick think that.

14 MR. MCKIRGAN: I'm sorry. Was there a
15 question?

16 MS. SCHLUETER: Do you want me to repeat
17 it?

18 MR. MCKIRGAN: My apologies' Janet. If
19 you could.

20 MS. SCHLUETER: Okay. Well, sorry.

21 MR. MCKIRGAN: I just -- if you could.

22 MS. SCHLUETER: Just looking at the slide
23 and looking at the process for development of the
24 draft regulatory basis and technical basis, I see
25 where it will be discussed at Reg Con this fall.

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1 MR. McKIRGAN: Yes.

2 MS. SCHLUETER: But, during the process of
3 developing it, do you anticipate providing a public
4 comment period as you move through the development of
5 those technical and regulatory basis?

6 Because after all, it will be the basis
7 for your decision of the terms.

8 MR. McKIRGAN: Yeah. So, it is not
9 currently the plan to put that out for public comment.
10 And let me take a comment to explain why.

11 We are trying to develop a basis. This is
12 not a rule making as -- and I think many of our
13 stakeholders appreciate that.

14 The actual, the term itself is not
15 required in the reg. The regulations require that
16 there be a term. But it doesn't establish what the
17 term should be.

18 It has been a staff practice for the five
19 years we -- and I think we'll talk more about how
20 broadly held that practice is.

21 And so I'm still trying to get some
22 calibration at today's meeting to figure out the
23 significance of this action. And then we will use
24 that significance to determine the extent of the
25 document that we will be preparing.

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1 And the document could have been as simple
2 as a note to file. Could technically have satisfied
3 the OIG basis.

4 This is not a full-blown rule making. If
5 it were an SRP input, certainly an ISG would warrant
6 public or stakeholder interaction.

7 And so I'm still trying to get my arms
8 around the scope and nature, the extent of the
9 document before we decide. I think if it does become
10 a more voluminous document or one that we think would
11 benefit from a public comment period, we will
12 certainly do that. We're not prohibited.

13 I personally am mindful, and I think many
14 of our stakeholders are mindful of all of these
15 activities cost time and money. And I wanted to right
16 size the effort.

17 You all appreciate, when we put documents
18 out for public comment, it requires staff time, it
19 requires industry time. And I want to make sure that
20 time is commensurate with the benefit that we would
21 achieve.

22 So, we would almost ask for your feedback
23 on that principal by itself. But that's really where
24 we are.

25 So we have not planned for a formal public

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1 comment period is the short answer to that question.
2 Sorry I belabored it so much.

3 MR. McCULLUM: This is Rob McCullum, NEI.
4 We've recently gone through an exercise where NRC
5 provided a draft regulatory basis for comment on the
6 decommissioning rule that's in process.

7 That was an extra step they took. And we
8 felt it was a very valuable step. We gained a lot of
9 insight from that.

10 We commented extensively. And we see in
11 the responses and what, you know, staff says
12 publically to date that there's been, you know, good
13 reflection on those comments.

14 In this case, and I was thinking, you
15 know, about what you said at the beginning, John,
16 that, you know, every five years you're not doing an
17 extremely extensive review. And the reason for that
18 is, is because you're not seeing a lot between five
19 years.

20 I mean, the notion it could be shorter or
21 it could be longer goes to, well, if it needs to be
22 shorter, we'd probably be seeing some problems. And
23 we're not. Because there's an extensive experience
24 basis.

25 And that's really my point here. Is that

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1 the basis for anything you do here would have to be
2 rooted in operating experience.

3 And I think you can see where I'm leading.
4 And I know the discussion will get here later.

5 We're kind of thinking we haven't reviewed
6 the operating experience our self in great depth yet.
7 We just found out about this meeting a few weeks ago.

8 So, we would tend to think that the
9 operating experience would point you towards the
10 longer term. You were just not seeing it. We're just
11 not seeing things.

12 And we've got a lot of operating
13 experience out there. But, the reason I think the
14 public comment is, granted the decommissioning thing
15 is a rule making.

16 This isn't necessarily a rule making, is
17 you see sitting around the table and on the phone
18 here, the people who actually have the operating
19 experience.

20 So, if you're going to make a
21 determination of term based on operating experience,
22 I think giving an opportunity to somehow get input
23 from, whether it's putting a draft regulatory basis
24 out for comment or whatever. And when you look at a
25 time frame, it goes to Reg Con that's in the fall, I

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1 think you can do this without extending your time
2 frame.

3 But I really think you should be making
4 this determination based on what the operating
5 experience is telling you. And in doing that you
6 should somehow interact with the people who have the
7 operating experience.

8 So, we would appreciate you know, how you
9 structure that through the most efficient means
10 possible. I think everybody would appreciate that.

11 But, we'd like to participate in that, is
12 what I'm saying.

13 MR. McKIRGAN: Thank you Rod. I think I
14 resonate with much of what you said. I think that is
15 good.

16 I will commit to interacting further with
17 the stakeholder community as we move forward. And
18 certainly I think you've made a lot of good points
19 about putting the document out for public comment.

20 So, I do appreciate that input. So, Torre
21 if you could help keep me honest and make sure we
22 reflect on that and then engage back with how we want
23 to proceed there.

24 And there is probably a very expedited way
25 we -- that we could put a document out for comment.

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1 Now, and so Rod not to put you back on the spot, but
2 I will, then we would probably want -- and hopefully
3 if the document is of a reasonable size, then we might
4 want to keep the comment period of a reasonable size.

5 And I think if we communicate clearly,
6 early and often as to when it's coming that would
7 enable all the stakeholders to turn too, if you will,
8 fairly quickly to get comments. So that we have
9 those.

10 MR. McCULLUM: If we know it is coming and
11 the period it's coming is not a comment period that's
12 45 days that includes Thanksgiving, Christmas, New
13 Years and Boxing Day, not that you'd ever do that.

14 (Laughter)

15 MR. McCULLUM: But, yeah. If we knew when
16 it was coming and the comment period included a fair
17 number of working days, we would welcome a short
18 comment period.

19 I think these people here are already
20 thinking about their operating experience. And they
21 -- I think they've had an idea where it might point to
22 them.

23 So, yeah knowing the period, knowing when
24 it's going to be would be -- I think that would be
25 great.

1 MR. McKIRGAN: Great, thank you. Thank
2 you. Where were we?

3 MS. TAYLOR: Okay. Okay, so next we'll go
4 to the general discussion. We're going to talk about
5 several different topics.

6 What factors should we consider. How we
7 should factor in risk. And looking at domestic and
8 international impacts. As well as just implementation
9 challenges to the change in the expiration term.

10 So, we'll go through the different sides.
11 And Bernie will lead this discussion. And I guess at
12 each subsection we'll break to see if anyone on the
13 phone has a comment or questions.

14 MR. WHITE: Yeah.

15 MS. TAYLOR: Okay.

16 MR. WHITE: Okay. Thanks Torre. We agree
17 with you Rod, that the people we need to be hearing
18 for are the people with the operating experience.

19 And that's why we're here. We have zero
20 operating experience when it comes to packages.

21 So, one of the big things you had
22 mentioned Rod, is that, you know, this stuff is, you
23 know, transportation is done safely. Radioactive
24 materials and transport is done safely.

25 And it's because the fact of the way it's

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1 regulated and used, you know, regulated by us, used by
2 you all, in a safe manner. We look at design reviews.
3 We issue the certificates.

4 Fabrication, you guys to accept this
5 testing to make sure that it meets the design.
6 Maintenance, operating procedures, you know, you're
7 making sure the package is in good condition each time
8 it's used in accordance with our requirements.

9 And so all of those roll into, you know,
10 safe shipments over the last 50, 60 years. And in
11 looking at how we were thinking about this.

12 So, you know, we thought about what
13 factors should we consider? So we thought, what we're
14 thinking is stability to the regulatory environment.

15 We've been using very similar big picture
16 regulations. You think about how it's tested, normal
17 conditions of transport, hypothetical accident
18 conditions.

19 The testing criteria, been in place for
20 the last 35, 40 years. A lot longer than I've been
21 here. Institutional stability, you know with both us
22 and the people doing the operating.

23 You know, it seems like year after year
24 after year, a decade, you know, we're talking to the
25 same people out there. Not exactly always. But very

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1 similar. And then there's a lot of good turnover on
2 your side of the sheet.

3 Technological stability. I think we've
4 improved how we do analysis from say when NUREG 0170
5 was done in 1977. You know, looking at computing
6 capabilities then to what they are now, and I think,
7 you know, the improvement has helped how we regulate
8 and how you guys actually use the packages.

9 So then there's the other, the other
10 things that we haven't thought of because we're not
11 the ones using the packages. And that's where, you
12 know, you guys come in and tell us what are we
13 missing? What else needs to be included in each of
14 these items?

15 You know, briefly and I'm going to talk a
16 little bit more about the risk studies later. But,
17 probably in the next slide actually, or next, next
18 slide.

19 But NUREG 0170, you know, basically laid
20 out kind of, I'll use -- people on the phone can't see
21 me using the air quotes around the work risk of
22 transportation. And they found that it was low. That
23 it was very low.

24 We did subsequent studies to the risk. We
25 did the modal study, which was the Fischer study that

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1 she talked about. We did NUREG 6672, the
2 reexamination that was for spent fuel. We looked at
3 the spent fuel risk assessment.

4 So about every 10 or 15 years we're
5 relooking at how we -- at the risk basis that we
6 establish in NUREG 0170. And each of those studies
7 has indicated that the risk basis that we established
8 in NUREG 0170 is low. And if -- and probably very
9 conservative in some areas.

10 So now is the point at which we open up
11 the, you know, the flood gates for comments, right.
12 So really, so the question is now, kind of given these
13 big picture factors, what do you see out there as the
14 others, or something we missed or didn't talk about in
15 the regulatory environment?

16 MR. McKIRGAN: And so thank you. This is
17 John McKirgan again for those on the phone. You'll
18 probably come to recognize my voice.

19 And so I think everybody in the room and
20 everybody on the phone recognizes that the primary
21 driver here has to be safety. And we do have a very
22 safe condition.

23 We have a stable condition with respect to
24 transportation of these materials. And the primary
25 goal is to maintain that. That's first and foremost.

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1 And as we think about different factors
2 that would weigh in, I think that has to be the
3 overarching theme that we start with. Is how would
4 that factor adjust the term? And how would that
5 relate to safety?

6 And there are some factors that might
7 detract from safety. And we need to be mindful of
8 those factors. And there's some factors that might
9 enhance safety.

10 And there are some factors that might be
11 safety neutral, but still be relevant because they
12 have business implications or afford flexibility. And
13 so we need to be mindful of all of those.

14 But I just wanted to make sure I got that
15 safety driver out first. Because that will be, of all
16 the factors, factors that influence safety are going
17 to have the highest weighting factor in our overall
18 assessment.

19 And so I'd ask that as we think about this
20 and reflect on that, it's that nexus to safety that
21 has to be the first driver. And so I'll pause at that
22 moment and let others start to chime in.

23 And Torre, I see you've got one person
24 queued up already. But maybe you can help lead us
25 through and get some good input.

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1 MR. McCULLUM: Yeah, Rod McCullum, NEI.
2 I don't want to -- I just spoke so, if I jumped in
3 front of somebody I apologize.

4 But, I absolutely agree safety should be
5 the primary driver. And we need to look at the
6 experience we have assuring safety and transportation.

7 One thing that isn't up there though is
8 cost. And you know, there are cost benefit analysis
9 that are applied to safety.

10 You do not want to spend an infinite
11 amount of money to achieve a minuscule safety benefit.
12 So, and the reason for that is really quite simple.

13 If you are devoting your safety resources
14 to things that aren't important to safety, that means
15 you're not devoting them to things that are important
16 to safety. Both the NRC and industry are looking at
17 limited resources here.

18 So, I would not say that cost by itself
19 should be on this list, because I wouldn't want to
20 lose that nexus of safety. But I would absolutely say
21 cost benefit should be on this list.

22 And if it did become a longer term, and
23 you lowered the cost, then you're thinking about well,
24 okay now, what does that freed up my resources to
25 provide additional benefits for safety?

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1 MR. McKIRGAN: Rod, thank you actually.
2 And so that's a great comment, that cost benefit.
3 Because that touches on another area of input that the
4 staff would likely seek from the stakeholders.

5 I know what it costs us to do a renewal
6 every five years on those terms. But I do not know
7 what it costs industry to do that.

8 And so that would be a very relevant and
9 useful information as we think about that. Cost
10 estimates are very difficult.

11 The agency has had challenges in the past
12 in developing accurate cost estimates for some of our
13 activities. And we need to reflect on that.

14 And that's where the stakeholder community
15 could really benefit this activity by providing that
16 kind of information.

17 Torre, so take us to another commentor.

18 MS. TAYLOR: Anyone else?

19 MS. SCHLUETER: Well just -- yeah, Janet
20 from NEI. I mean, I figured you might get there in
21 your logic flow.

22 But the cost issue is exactly one of the
23 reasons why I think maybe you'll find a way to provide
24 some visibility and comment opportunity for
25 stakeholders.

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1 MS. TAYLOR: Okay. Anyone else in the
2 room?

3 (No response)

4 MS. TAYLOR: No? You want to check on the
5 phone to see if there's anyone there with a comment?

6 OPERATOR: If you would like to ask a
7 question or make a comment on the phone, please press
8 star one and record your name and organization at the
9 prompt. One moment.

10 We've got Scott Murray from GE Hitachi.
11 Your line is open.

12 MR. MURRAY: Okay. Hi John. This is
13 Scott Murray. I have to come back to, I guess, a
14 previous commentor.

15 I too have many years of operating
16 experiences with certificates of compliance. Probably
17 decades between GE Hitachi and Global Nuclear Fuel, we
18 are the certificate holder of three separate
19 certificates, package certificates.

20 And I could comment that, you know, we're
21 involved heavily with renewals and the DOT re-
22 validation from foreign competent authority
23 certificates on a variety of package certificate
24 holders.

25 So, we're heavily involved in this

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1 process. I've been involved, like I said, for many
2 years.

3 Two observations I would make. If the
4 term from five years is changed, either shorter or
5 longer, there are at least a couple of what I would
6 call unintended consequences should be considered.

7 The first is the international community
8 to the best of my knowledge, does use a five-year
9 term. And because we do validations and use those
10 packages for import and export into the U.S., if we do
11 change the term from something different than five
12 years, and the international community does not, it
13 creates kind of a conundrum.

14 Because we've disconnected the term from
15 the foreign competent authorities if there's also an
16 NRC endorsement. And it becomes very confusing and
17 difficult for us to maintain the current status if
18 there are two separate terms that we're involved for
19 the same package.

20 The second unintended consequence I would
21 mention is extending the term. I mean, I love
22 efficiencies and I love having longer terms for
23 licenses in a variety of other things.

24 But extending the term for a package
25 certificate say beyond eight or ten years, I'll just

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1 throw those two numbers out, also significantly
2 increases potentially the burden and difficulty on the
3 certificate holder. And for that matter, the NRC
4 staff, for renewals.

5 And by that what I mean, the information
6 in a safety analysis report for our packages anyway,
7 is very large. They are five to six hundred page
8 documents.

9 And if the term increases and there is
10 updates or changes, it's a significant amount of work
11 to bring that document to current. And then what we
12 find, most of our technical staffs are very different
13 after a ten-year period.

14 So oftentimes we have to kind of re-
15 validate and reconfirm the information. And
16 oftentimes NRC staff has to re-validate and reconfirm.

17 It's just one of those things that happens
18 when people leave and the continuity is no longer
19 there.

20 That's the end of my comments. Thank you.

21 MR. McKIRGAN: Scott -- I'm sorry, Scott.
22 If you could stay on the line for just a second.
23 Because this is a Category Three meeting. So it's a
24 free exchange.

25 And I -- you said something that really

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1 hadn't occurred to me. And I wanted to make sure I
2 understood it correctly.

3 It was, should I interpret that second
4 comment that if the term gets too long, the costs can
5 go up? Did I understand you correctly there?

6 MR. MURRAY: Very much so. I was involved
7 recently with a package that we had that the
8 certificate of compliance actually had expired.

9 We were in timely renewal. It took us
10 several years to consolidate the SAR and to get it
11 approved. And it was a very expensive process.

12 We spent well over a million dollars
13 getting that package re-validated.

14 MR. McKIRGAN: So thank you for that.
15 That's something that would not have occurred to me.

16 And so, you know, I'm a scientist and
17 engineer, many of us might be. And so I'm trying to
18 graft this in my head.

19 And it sounds like there might be a sweet
20 spot somewhere in cost benefit space as to where an
21 appropriate term might fall out. And quite frankly,
22 it just hadn't occurred to me that cost would go up as
23 that term got too long.

24 So, thank you very much for that comment.

25 MR. MURRAY: Sure.

1 MR. McCULLUM: John, yeah on the first
2 part of Scott's comment, and I would invite, if it's
3 appropriate for a Category Three meeting, I would
4 invite Scott to answer on this if he could.

5 I would think that if you were going to
6 extend the period, and you weren't going to force the
7 internationals to change their practices. Lots of
8 luck with that.

9 That you might want to consider multiples
10 of five years so that you wouldn't be, you know, in
11 renewal in off -- you could see a scenario if you were
12 at seven and a quarter years or something where you'd
13 almost always be working on a renewal somewhere.

14 So I would be very sensitive to Scott's
15 concern. And I think that the extension might look at
16 the -- at multiples of five years then.

17 MR. McKIRGAN: No, thank you. Thank you,
18 Rod. I think that's a good thought to offer.

19 I want to be careful about how finely we
20 can tune that parameter. I don't know that our
21 assessment will be sophisticated enough to resolve it
22 down to the months.

23 I think in some number of years would be
24 appropriate. And five might be that.

25 MR. McCULLUM: Yeah. I don't know. A

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1 hypothetical, even if it was six, you'd have a, you
2 know, years that only matched up every like, you know,
3 30 years. So, --

4 MR. MCKIRGAN: Yeah. Yeah.

5 MS. TAYLOR: Did you have a counter
6 response to that? Scott?

7 MR. MCKIRGAN: Scott's gone. Do you want
8 to see if there are any other comments on the line?

9 MR. WHITE: Yeah.

10 MS. TAYLOR: Oh, he's off. Okay. Are
11 there any other comments on the line?

12 OPERATOR: Next we have Peter Vescovi from
13 TN Americas. Your line is open.

14 MR. VESCOVI: Yeah. I just wanted to
15 comment on the relationship between the industry
16 standards and the renewal period.

17 I think that one of the things that ought
18 to be considered is how often are the standards, the
19 ANSI standards, the ASME standards, how often are
20 those reviewed and subject to change?

21 And I think that relates also to the
22 safety. I mean, normally these standards, or
23 sometimes these standards will change and have some
24 sort of safety intent or implication.

25 So, I would just request that you look at

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1 the different standards and things that we cite in our
2 applications. And maybe look at the frequency of
3 which those are revised when you consider the new
4 whole term.

5 MS. TAYLOR: Thank you for that. Okay.

6 OPERATOR: There are no other participants
7 in the queue at this time.

8 MS. TAYLOR: No one else? Okay. So,
9 anyone else in the room? Yeah?

10 MR. VAN NOORDENNEN: Hello, it's -- my
11 name is Gerry Van Noordennen. And I'm from
12 EnergySolutions.

13 And a little bit about EnergySolutions,
14 we're the largest supplier of Type B casks in the U.S.
15 Richly supply, support every nuclear plant in the
16 country.

17 One of the -- we also have a lot of
18 involvement, our casks are used extensively with DOE,
19 Department of Defense and they're also used in Canada.
20 And we have certificates there with the Canadian
21 Nuclear Safety Commission. And also some European
22 countries.

23 One of the comments that was just made by
24 TN, I agree that we should look at the frequency of
25 updates on ANSI standards or International Atomic

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1 Energy standards, which would also be considered by
2 the NRC in doing a major update to the standards. I
3 think the last one was like DASH-96.

4 And if you look at that frequency, which
5 is maybe roughly every ten years standards get
6 updated, that might be a good regulatory basis to look
7 at for renewal terms. And so that's why I would say,
8 you know, ten years maybe makes more sense if you look
9 at that as a tenable basis.

10 And then the other comment on cost, cost
11 benefits, one of the charts that was in the OIG report
12 showed about a third of the NRC resources is devoted
13 to renewals. And that's kind of reflected too on our
14 end.

15 That you know, we spend significant
16 resources doing renewals. And if -- that's keeping
17 the status quo. So, if a third seems like a lot of
18 time spent on keeping the status quo.

19 It seemed like if we went to ten years,
20 that would, you know, enable you, the NRC and the
21 users to be more efficient.

22 And a final comment is even though it's
23 not stated, but other agencies look to the NRC as the
24 lead federal agency in this area. And so if the NRC
25 switched to ten, I would assume that the DOT and DOE

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1 would also seriously consider switching to ten. As
2 well as some of the other international agencies.

3 So, just keep that in mind. Thank you.

4 MS. TAYLOR: Thank you.

5 MR. McKIRGAN: So, thank you for that. I
6 did want to make sure I understood the comment with
7 respect to the OIG table on resources.

8 And I'm wondering if that might have been
9 slightly misinterpreted? And Gerry, maybe we can talk
10 offline.

11 Because I don't think the resources, and
12 I'm very attuned to resources and budgets and staffing
13 levels. I don't think that chart should be
14 interpreted to say that the staff is spending a third
15 of its resources on renewals.

16 And maybe I'll have to go back and look at
17 how it is. Because I can share with you all that the
18 resource burden on the staff's part for renewals is
19 relatively slight.

20 It's a very straightforward review. And
21 I do -- I contrast it with some of our international
22 regulators who do do a very comprehensive rereview.

23 Ours is not that. We believe we have good
24 oversight and other mechanisms that enable us for a
25 very streamlined renewal.

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1 And so maybe I'll have to take another
2 look at that report myself to make sure I've captured
3 it right. But, I do agree with all of your comments,
4 Gerry. So thank you. Thank you very much for that.

5 MR. VAN NOORDENNEN: Okay. Thanks.

6 MR. STRADER: So that was the question I
7 was going to ask. Oh, sorry, Randy Strader, NIST.

8 The question I was going to ask, because
9 I think I'm looking at the same chart that he was
10 talking about. Was how much of the res -- how much
11 resources do you guys spend on amendments versus
12 renewals versus a new?

13 Because it shows here 62 percent over the
14 past four and a half years is amendments that you guys
15 have gone through. And I'm sure that's a pretty quick
16 renewal for review process.

17 MR. McKIRGAN: And so thank you for that.
18 Could you tell me what page you're on? I'm not --

19 MR. STRADER: I'm on page two.

20 MR. McKIRGAN: Page two.

21 MR. STRADER: Yes.

22 MR. McKIRGAN: Thank you. Thank you. And
23 so for those on the phone. And so I believe this is
24 in number of cases.

25 MR. STRADER: Right.

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1 MR. McKIRGAN: And which I differentiate
2 from staff hours for example. So, this isn't a
3 resource, this is just an accounting. And so help me
4 --

5 MR. STRADER: So which one of these are
6 more intensive as far as resources?

7 MR. McKIRGAN: So that I can provide some
8 additional insights. And, I'm sorry, it's a shameless
9 plug for our website.

10 We recently went through an activity where
11 we did try to provide our estimates for most of the
12 very common activities, amendments and renewals. It's
13 on the website.

14 And it's not perfect information. These
15 are estimates. But it is -- it's useful. And it very
16 much speaks to this issue.

17 So renewals is a relatively -- I'm also
18 another shameless plug for high quality applications.
19 I'll never miss an opportunity to emphasize the need
20 for high quality submittals.

21 But a good high quality renewal can be
22 done in 10 to 20 staff hours. It can be a relatively
23 straightforward activity.

24 Amendments vary based on the complexity of
25 the change. And that can be anywhere from 50 hours to

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1 thousands of hours depending on the nature and
2 complexity of the change.

3 A new package also. There the driver is
4 on the quality and comprehensiveness of the
5 application. But certainly a new package would be,
6 you know, five hundred hours would not be uncommon.

7 And I have a review here in the room who
8 will correct me if he thinks I'm mischaracterizing
9 that.

10 MS. WHITE: Well, I think it depends upon
11 the case for a new case. You know, we have packages,
12 everything from radiography cameras to spent fuel
13 packages.

14 So I don't think we get a spent fuel
15 package and review and it took five hundred hours.
16 But, some of the smaller cases, absolutely.

17 I think that's probably about an average.
18 So, you know, if you've got a relatively simple
19 package, don't think it's going to cost five, six
20 hundred hours just for something.

21 But it really depends upon the change and
22 the complexity of your package.

23 MR. STRADER: So, would you say in this
24 case, if you're looking at this pie chart here, right?
25 Because if you do an amendment, right, it restarts

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1 your clock five years after the amendment, right?

2 Is that correct?

3 MR. MCKIRGAN: Not for transportation.

4 MS. WHITE: For the term?

5 MR. STRADER: Yes.

6 MS. WHITE: No. The term is five years.

7 And if you get an amendment, we issue the amendment
8 and the term is still -- the expiration date is still
9 the expiration date.

10 MR. STRADER: It's still with the
11 amendment.

12 MR. WHITE: Absolutely. We don't notch it
13 up five years every amendment.

14 MR. STRADER: Okay.

15 MR. WHITE: Typically.

16 MR. MCKIRGAN: And if I could, this is
17 John McKirgan again. Bernie touched on an important
18 point that I'd like to reemphasize. And that has to
19 do with the breadth of the packages that are covered
20 under Part 71.

21 And so as Bernie mentioned, you've got a
22 broad spectrum of packages to which this same standard
23 applies. And as we go through this exercise, we need
24 to be mindful of that.

25 And it likens back to some of the criteria

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1 that we were talking about with respect to
2 technological stability. For example, in spent fuel
3 storage, these are large packages.

4 And you don't see technological
5 obsolescence very often in spent fuel. New materials
6 do come, which can enhance safety. And that is a
7 factor. New joining techniques or new fabrication
8 techniques can come. And that can be a factor.

9 The other thing I will reemphasize to
10 everyone, it goes back to regulatory stability, we do
11 not change our safety standard as these new
12 technologies come to bear. We have a defined safety
13 standard that the regulations are promulgating.

14 And we need to be mindful that we are not
15 changing that standard as we bring about new
16 technologies that can enhance safety.

17 Torre, I'll turn it back to you.

18 MS. TAYLOR: Okay. Any more discussions
19 on the factors that we should consider?

20 MR. STRADER: I'm sorry.

21 MR. MCKIRGAN: Please.

22 MR. STRADER: So, I mean, really looking
23 at this, you're looking at the renewals as being the
24 factor. Because amendments you're not going to get
25 rid of right?

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1 MR. MCKIRGAN: No.

2 MR. STRADER: Those are always going to
3 interfere.

4 MR. MCKIRGAN: Right.

5 MR. STRADER: And then the new ones you're
6 not going to get rid of. Those are always going to be
7 here. You're always going to have new ones.

8 So, if the renewals, it's a very little in
9 comparison to everything else.

10 MR. MCKIRGAN: Um-hum. Um-hum.

11 MR. STRADER: Very little as far as
12 resources on you guys' end of it. It's more of our --
13 well, we need the renewals that it would be an impact.

14 MR. MCKIRGAN: Yes. And that is a piece
15 of the -- an important piece of the puzzle that we
16 actually don't have a good data on.

17 Is what is it costing industry to develop
18 these renewal packages? So that would be valuable
19 information.

20 MS. WHITE: So if you think about though,
21 you know, the certificates we have. We have about 90
22 some certificates.

23 So if we say 90, it's sort of because it's
24 easily divisible by five. In five years we get about,
25 what 15 renewals a year or something. Not even.

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1 Nineteen renewals a year.

2 So, it is a small number of cases in
3 comparison. But, not inconsequential.

4 MR. MCKIRGAN: So, let's keep going.

5 MS. WHITE: Any further comments? Any
6 comments from the phone?

7 MR. MATHUES: Yeah. This is Glen Mathues,
8 TN Americas. And I noticed a couple of slides down
9 Bernie, I know we've talked a lot off line earlier on
10 about things to address.

11 And I think you've got some of it. Peter
12 Vescovi who I work with extensively, and I work
13 together on talking about this.

14 And one of the things that I did not
15 mention to Peter and I thought about is, what's some
16 of the international competent authorities, do they --
17 what kind of checklist do they have?

18 Because some of them are -- as we know,
19 with one of our certificates that's used
20 internationally, quite a few countries are taking
21 upwards of a year to completely review the whole
22 package.

23 Are there some indicators or some things
24 that they're reviewing that, you know, if you change
25 the time frame, and as we look at safety, safety being

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1 number one, is there something that they're looking at
2 something that maybe you should look at that you may
3 not have considered?

4 Not that you have not in any way, shape,
5 or form. Because the regulations to an extent already
6 have that, i.e., the 7195 report as an example.

7 That's my comment.

8 MS. WHITE: Thanks Glenn. I don't know
9 that we can comment on what international regulators
10 are doing, because honestly, we don't interact with
11 them very often.

12 I know my colleague Dave Pstrak goes, you
13 know, is involved with Mike in trends. But that's a
14 little different venue, and a little different purpose
15 over there.

16 I don't know if you have any insights
17 Mike?

18 MR. CONROY: Not in particular. This is
19 Mike Conroy at the DOT, Department of Transportation
20 PHMSA.

21 But Glenn is correct. We do see other
22 competent authorities following different practices.
23 And some of those have changed over time as well.

24 So, I don't know if -- and I think you're
25 dealing just with some of the major competent

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1 authorities. There's a lot that simply are re-
2 validating what come from the major players.

3 So, it's -- there's a mixed bag of things
4 there.

5 MS. WHITE: Okay.

6 MR. CONROY: But as long as I have the
7 microphone, --

8 MR. WHITE: Please.

9 MR. CONROY: I did want to follow up on
10 the discussion about amendments versus renewals.

11 And that's one factor I think to think
12 about in terms of looking at the regulatory basis, is
13 if you change the certificate expiration period, what
14 impact is that going to have in terms of what you're
15 going to see coming in for your action?

16 I took a look back at my data over the
17 certificates that I've looked at that we've done
18 competent authority certificates on top of NRC
19 certificates over the past 12, 13 years that I had
20 data easily available for.

21 And the average time period between
22 applications that we saw comes out to two and a half
23 years per certificate. So, that says on average,
24 we're seeing an amendment request at the half way
25 point of, if you will, of an expiration period.

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1 So, you know, again whether the clock
2 resets or not, there is a separate question. But, if
3 you just say well, I'm going to extend from five years
4 to ten years, if they're still coming in every two and
5 a half years, I'm not sure how much difference you're
6 going to see in workload given that the renewals are
7 fairly straightforward.

8 I then, I took a look at 37 different
9 packages on this list that I looked at. And I didn't
10 -- this is, again, just ones that had NRC
11 certificates.

12 There were about three out of those 37
13 that ran basically the full five years. That didn't
14 come in for some either packaging change or content
15 change or some other correction in that time period.

16 So, the vast majority of what we're
17 seeing, of things that are crossing my desk are not
18 because they've timed out at five years.

19 But, a small example of all the NRC
20 certificates, I'll caveat that.

21 MR. WHITE: Thanks Mike. And I would
22 agree with what Mike says. In terms of what we see,
23 I can think of probably a handful of those 90 some
24 certificates that we don't see amendments on over the
25 course of five years.

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1 You know, and I'm not -- and there are
2 some that we haven't seen an amendment on in 10 or 15
3 years, except for the renewal.

4 But that's by in large the outlier or the
5 downside. Most packages are in here fairly routinely
6 for amendments, so.

7 MS. TAYLOR: Okay. We should check on the
8 phone one more time before we go to the risk
9 discussion.

10 OPERATOR: On the phone we've got Wren
11 Fowler with NAC. Your line is open.

12 MR. FOWLER: Thanks. Hey John and Bernie,
13 I just a really kind of one comment here I'd like to
14 add.

15 As far as the impact from domestics with
16 the five-year term, I'd say the biggest thing for us
17 is really the international shipments.

18 While we'll have a timely renewal for the
19 NRC certificate, and obviously the existing
20 certificate doesn't expire while it's under timely
21 renewal, we have to worry about the expiration dates
22 of the downstream documents.

23 For instance the DOT certificate and any
24 foreign validations that we have at that time. They
25 all have their own individual expiration dates. And

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1 they're typically, in our experience, tied exactly to
2 the NRC expiration.

3 So, as when it gets close to those
4 expiration dates, we're kind of thrown into a little
5 bit of a limbo from the standpoint of continuing the
6 DOT validation along with any international ones.

7 And for a package like our LWT cask that's
8 very active both domestically and internationally, and
9 as you know, our NRC certificate, we're at revision 68
10 of that certificate. And the DOT is Rev 61.

11 Now that's just some food for thought
12 there. Is that every five years when we get close to
13 this, we have to worry about the time frames on those
14 expiration dates and the recertification and
15 validations internationally.

16 MS. WHITE: Thank you for that comment
17 Wren. And I think that's something that we thought a
18 little bit about in developing our slides.

19 And we'll continue to think about that as
20 we're moving forward. But that's something we don't
21 have experience with the international community
22 because we issue the NRC certificates and then we're
23 done until the next time you come in for an amendment
24 or a renewal.

25 MR. FOWLER: Right.

1 MS. WHITE: Which is my date.

2 MR. FOWLER: And like I said, typically
3 for us the DOT will follow the NRC one. And then any
4 international ones will follow the DOT.

5 So they all go downstream with the five-
6 year term.

7 MR. WHITE: Okay. And I will also say
8 that one thing that we did commit to, to the OIG when
9 we responded back is discussions with the
10 international community.

11 So, we'll have to figure out the best way
12 for us to that. A little hard to have a conference
13 call around the world.

14 So, just moving on. I'm sorry, any more
15 comments on the phone?

16 OPERATOR: Yes. We have Lori Podolak with
17 QSA Global. Your line is open.

18 MS. PODOLAK: Good afternoon. I just
19 wanted to kind of comment back to the things that Mike
20 Conroy had said about renewal versus amendments.

21 Our packages are a little bit different
22 from a number of other transport packages. Because
23 they are not only a transport package, but they're
24 also a functional radiographic device. So, we may
25 make changes to the functioning design, which then

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1 affect the transport approvals.

2 So, whether the five-year term increases
3 from, you know, five to ten or eight, I don't think
4 that's going to make a huge difference on our program,
5 just because natural amendments tend to bring us in a
6 lot more frequently than, you know, going a full five-
7 year term without seeing any kind of a need to amend
8 or touch that certificate.

9 MS. WHITE: Thank you Lori. I appreciate
10 that. Any other comments on the line?

11 OPERATOR: Yes. We've got Tanya Slomo
12 with Daher/TLI. Your line is open.

13 MS. SLOMO: Hello. This is Tanya. I was
14 just curious, along with these last three comments, is
15 that when we submit these amendments, and often times
16 we are doing consolidated amendments, is why -- what's
17 preventing us from at that moment asking for an
18 extension of the renewal?

19 So whether it's three years or five years.
20 Because most of us are coming in at this two and a
21 half year mark with revisions. And it does definitely
22 impact the trickle down of the foreign amendments, or
23 validations.

24 That's my comment.

25 MS. WHITE: Yes. Thank you Tanya. There

1 is nothing preventing you from requesting renewal at
2 any point during the five-year term.

3 Typically we don't see people coming in
4 after a year requesting another five years, you know,
5 for a nine-year term. But we do have people -- we do
6 have certificate holders that come in six months to a
7 year in advance because of the international impact.

8 So that's not an uncommon -- I wouldn't
9 say it's common, but it's not uncommon either for us
10 to have these discussions.

11 So, I mean, if you were coming in at year
12 four and you want to ask for renewal as well, by all
13 means.

14 Okay. Any other --

15 OPERATOR: And there are no other
16 participants on the phone queue.

17 MR. McKIRGAN: I love risk. It's all
18 risk.

19 MR. WHITE: Risk. Risk. So, and we went
20 back and took a look at the four major, I'll use the
21 air quotes around the word risk again, studies that
22 we've done.

23 NUREG-0170, the Modal Study that Lawrence
24 Livermore did. NUREG-6672, and again, NUREG-2125,
25 I'll talk a little bit more about theses as we move

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1 on.

2 NUREG-0170 as Torre said, is our final
3 environmental impact statement on transport of
4 radioactive materials. And it covers everything.

5 Essentially everything at the time. It
6 wasn't limited to any particular type of package. And
7 it wasn't limited to any particular mode of transport.

8 I found that the environmental impacts to
9 both people and the environment were low. The primary
10 function of that was to determine -- for the NRC to
11 determine what the impact was for future regulations
12 moving forward.

13 And what the projected impact of
14 transportation would be in the 1985 time frame. And
15 I think it did that. It focused on normal conditions
16 of transport and accidents.

17 Looked at radiation exposure of transport
18 workers. And people along the route. It took various
19 routes and it evaluated normal doses incident to
20 transport. And then accidents.

21 It was a pretty conservative study back
22 then in terms of what it assumed for releases. It
23 didn't do much in the way of evaluating the structural
24 impact of some of these packages.

25 It made more assumptions than anything.

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1 Compared to later studies, which they actually took
2 some representative packages and evaluated the
3 structural and thermal impacts of that.

4 The conclusion was that the radiation
5 exposure of individuals from normal transportation is
6 well within the recommended limits for exposure to
7 members of the public. The average radiation dose to
8 populace and at risk from normal transportation is
9 small.

10 There is a small fraction of the limits
11 for them. The background -- is small -- and it's even
12 for small -- blah, my mouth's not working. I probably
13 should have brought something to drink.

14 Small fraction of the natural background
15 dose that people receive every year. So, one of the
16 things that we know from 0170 and future studies, is
17 it is considered to be a conservative evaluation.
18 Even this day. Future studies that we've done have
19 shown that.

20 The Modal Study looked at mainly spent
21 fuel packages shipped by rail and truck. It was
22 conducted to estimate the responses of spent fuel
23 packages to severe highway accidents.

24 I know for a lot of you people who don't
25 have spent fuel packages, you kind of sit back and

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1 kind of yawn at this one. And I don't blame you.

2 It looked at highway and rail accidents
3 that fall with the Part 71 hypothetical accident
4 conditions. And then for accidents that have higher
5 responses to those -- or accidents that have higher
6 loads on the package than those.

7 It concluded that the radiological impacts
8 from spent fuel under severe highway and rail
9 accidents were less than what we had previously
10 evaluated in NUREG-0170.

11 Later one NUREG-6672 reexamination of
12 spent fuel shipment risk estimates, it focuses on
13 truck and rail transport. And it evaluated four
14 generic Type-B packages.

15 It evaluated incident free doses and
16 accident doses. Again, the results show that NUREG-
17 0170 is extremely conservative.

18 It confirms that the trans -- the spent
19 fuel transport regulations adequately protect the
20 public health and safety.

21 And then finally back in 2014 we finished
22 the spent fuel risk, transportation risk assessment.
23 That was a big multi-year project that we did.

24 The purpose was to reproduce and in some
25 cases extend the risk of analysis that were previously

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1 considered in NUREG-0170. So it looks like about
2 every 10 to 15 years we're evaluating 0170 just to
3 make sure that there isn't anything that is deviated
4 or has increased from them to ensure that our baseline
5 is still a reasonable baseline.

6 Again, this study shows that the risk from
7 radiation emitted from packages during normal and
8 accident conditions is low. It indicates that NUREG-
9 0170 maybe four or five orders of magnitude higher
10 than what current estimates in terms of your current
11 calculational capability show.

12 So, you know, I talked a little bit about
13 why we think packages are safe from, you know, from a
14 regulatory point of view. And how they're used. The
15 risk studies that we've done have shown that the risk
16 is low.

17 And so now we come to the things that we
18 don't consider in these studies. For example, human
19 error, human factors, errors related to the -- and how
20 they might relate to the expiration term.

21 And then any other risk contributors that
22 we haven't thought of outside of the ones in those
23 studies. Some of those fac -- quite a mouthful.

24 And I probably went through it probably
25 too fast. But, I think most of you are fairly

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1 familiar with the big conclusions in those studies,
2 so.

3 MR. McKIRGAN: So, John McKirgan again.
4 Thanks for that Bernie. I think, you know, I think
5 about this very simplistically.

6 In 1970 we did a fairly comprehensive
7 look. Found that this was being done safely. We have
8 periodically checked and continually reaffirm that
9 look.

10 And further refine our understanding of
11 how conservative that early study was. And it's
12 interesting, the risk as low, it's actually creating
13 a challenge for me in this particular instance, in
14 that I'm struggling on to how to factor that into the
15 expiration term.

16 The nexus between that very low risk, it
17 -- we were in a period in the agency where we want to
18 continue to use risk and we want to move towards risk
19 informed evaluations.

20 But here the risk is so low, I'm
21 challenged to think of a way where it would be a
22 dominant factor in changing from five years to three
23 years or five years to ten years.

24 And so, we would welcome comments from all
25 the stakeholders to, you know, bring a perspective to

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1 this low risk activity and its nexus to the term of
2 the expiration term that we're talking about.

3 So, I'll pause there and see if anybody
4 can help us out on this topic.

5 MS. SCHLUETER: Well, I'm going to deviate
6 just slightly. But, on that concept, I'm not sure
7 exactly what you would discover, but it might behoove
8 you to look across the agency.

9 And I know Torre was in the materials
10 program with me when we did this. But, when I worked
11 here. But, you know, they took just from a generic
12 basis all the byproduct materials licensees and they
13 extended the terms from five years to ten years, from
14 a risk perspective and from a resource perspective.

15 Just last fall the commission approved the
16 staff's recommendation to take uranium recovery
17 licensees from 10 years to 20 years. Fuel cycle
18 facilities license terms are going from 20 to 40.
19 Some are 40.

20 And now NRR is looking at the living
21 license for the research and test reactors with FSAR
22 updates every five years or so.

23 So, there's some other models out there
24 that have been done within the agency. And you know,
25 you might try to take a sneak peek at some of the

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1 basis that they used for changing those terms.

2 Not quite the same thing. But, you know,
3 I hate to see you find yourselves somewhere down the
4 road and then someone in your food chain perhaps asks
5 you, did you look at, you know, within the agency to
6 what you could learn from other experiences, so.

7 MR. MCKIRGAN: No, thank you. Thank you
8 Janet. I think we're aware of each of those.

9 And the trend is clear, and we will take
10 a more comprehensive look at those generically and
11 with respect to how they are factoring risk into those
12 terms.

13 MR. McCULLUM: and in the vein of -- oh,
14 I'm sorry, it's Gerry's turn. I forgot.

15 MR. VAN NOORDENNEN: Yeah. Gerry Van
16 Noordennen. I think risk is more tied to operational
17 use than to term limits.

18 Because take for example the Type-B casks,
19 prior to every use they are leak tested and inspected
20 when the shipment starts and when the shipment is
21 received. And it's also inspected for any damage and
22 repair.

23 So, it's, you know, if you're trying to
24 tie term to like age-related degradation or something,
25 well that would be picked up prior to every use. Say

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1 there's a rubber seal that has failed, well that would
2 be replaced.

3 So, it's really not tied to term use.
4 It's tied to operational use.

5 MR. McKIRGAN: Thank you. I think we came
6 to that same kind of reevaluation. And it somewhat
7 decouples the term from that activity.

8 And maybe I could say that gives us some
9 greater latitude in what we do with the term because
10 of those facts. And so we are -- but thank you for
11 reminding us of that.

12 MR. McCULLUM: Well, I just want -- this
13 is Rod McCullum, NEI again. I just wanted to mention
14 that there is another precedent that's actually very
15 close to this that the renewal terms for dry cask
16 storage licenses went from 20 to 40 years in 2011.

17 And in the case of used fuel, these are
18 actually some of the same canisters. So, I would take
19 a look at the basis for that decision as well.

20 MR. McKIRGAN: Thank you. Thank you.
21 Yeah.

22 MR. WHITE: So, do we have any comments on
23 the phones?

24 OPERATOR: Currently there are no
25 participants on the phone queue.

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1 MR. WHITE: I'm sorry, you say that there
2 were none?

3 OPERATOR: There are no participants on
4 the phone queue.

5 MR. WHITE: Okay. Thank you. Anything
6 else from the room before we move on?

7 MR. McCULLUM: Yeah. I'm not sure this is
8 the right place to raise this, but I'm thinking about
9 I heard a 500, 600 page SAR.

10 I heard, you know, that there's so much
11 information that goes into some of these that you lose
12 so much institutional expertise. So, I'm being
13 sensitive to the unintended consequences that Scott
14 from GE raised here.

15 Another aspect to this equation, and it's
16 something we're looking at right now on the dry
17 storage, Part 72 side, and that's a level of detail.
18 So, I think the level of detail should also, and I
19 agree with Gerry, it's not necessarily in the renewal
20 that you pick up the reflection of risk.

21 And then there is an inspection regime out
22 there. I think that's one of the things we're
23 learning in dry storage, is that if you take credit
24 for that existing, does so much detail have to be in
25 the license?

1 So, if you're looking at risk, I think you
2 need to also look at the level of detail question a
3 little bit too. Particularly if it would create
4 unintended consequences.

5 MR. MCKIRGAN: Rod, thank you. Thank you
6 for that. I believe there is greater work that can be
7 done in Part 71 on that topic.

8 And again, I wish we had infinite
9 resources to -- there's a lot of things we could
10 tackle right now. And we have to keep nibbling away
11 where we can and find those opportunities.

12 But I do, I resonate with that completely.
13 In this particular exercise, we're going to focus on
14 the term.

15 But I do think there is more work that can
16 be done. I do look forward to more transformative
17 thinking.

18 And I think there is a lot of work we can
19 do in 72. And I think there's work we can do in 71
20 along that line.

21 So, thank you for that. Now let's see, so
22 with that are there any other comments in the room on
23 risk?

24 (No response)

25 MR. MCKIRGAN: All right. Let's --

1 MR. WHITE: I think I put them to sleep.

2 (Laughter)

3 MR. WHITE: So, I think this is a good
4 time, we'll take about a 15 minute break. It's -- I
5 didn't bring my watch.

6 MS. TAYLOR: It's ten til 3:00. So, about
7 five after 3:00. And then we'll come back and
8 continue talking about domestic international impacts
9 and implementation challenges, which we get into costs
10 for.

11 So, for those on the phone, we'll be back
12 in about 15 minutes.

13 MR. WHITE: So if somebody wants to go
14 downstairs, let me know. I'll be happy to take you
15 down.

16 (Whereupon, the above-entitled matter went
17 off the record at 2:51 p.m. and resumed at 3:04 p.m.)

18 MS. TAYLOR: Okay. We're back. We're
19 ready to start in again. Okay. Oh, yes, next slide
20 there we go. Ready?

21 MR. WHITE: Yeah.

22 MS. TAYLOR: We're going to go onto the
23 impacts if there were a change in the certificate term
24 domestic/international. So Bernie?

25

1 MR. WHITE: So, touching this subject a
2 little bit, the impacts of, you know, the domestic the
3 cost to the certificate holders, licensees, the
4 international impacts based on DOT's Certificate of
5 Competent Authority and other re-validations by
6 foreign countries.

7 So if there's anything else, I mean, we're
8 opening the floor now for discussion on that. How, if
9 we were to change the certificate term, how would that
10 affect, you know, how you do business both with DOT
11 and internationally?

12 Would it negatively impact it? Would it
13 positively impact it? And the cost benefit if you
14 will, of that impact is kind of what we're looking for
15 here.

16 Okay. Ready to jump in John?

17 MR. McKIRGAN: Oh yeah. So, I can't
18 resist. So thank you. Because you know, we've had
19 good discussion on a number of factors.

20 To me I think this was we need stakeholder
21 input on all the factors. But this is probably the
22 biggest one where our stakeholders can help us.

23 Because we're not in your business. We're
24 not doing your day to day operations. And there's a
25 little bit of -- a few folks have come from industry

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1 into the NRC, and they often bring valuable insights.

2 But by and large, we're not in your day to
3 day operations from the business perspective. And
4 there are -- we've talked a little bit about
5 unintended consequences that we want to avoid.

6 And so this is probably one of the largest
7 areas where we'd appreciate the most feedback.
8 Because the plus side of the equation here is, is that
9 this is not in regulations. So we don't have to go
10 through a rule making activity to change the term.

11 But, it is -- it's an important serious
12 consideration. And we don't want to go too far down
13 the wrong road.

14 And so finding the right term if we were
15 to change. And making sure we and you have the time
16 to think through the implications of that are
17 critically important to us.

18 And so I've talked here for a moment to
19 give everybody some time to start to gather their
20 thoughts. Hopefully we'll get some good input on
21 impacts and making sure we avoid any unintended
22 consequences.

23 And so with that pause.

24 MR. WHITE: And I'll open. I'll make one
25 more comment. John said, talked about, you know,

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1 think through.

2 And I made the comment earlier, as you're
3 thinking through it, if you come up with comments next
4 week, next month, that you think we should consider,
5 further back in the slide presentation is both Torre's
6 and my email address.

7 So, I want to stress it again, if you have
8 further comments after the meeting you want us to
9 consider, please by all means email one or both of us.

10 So, now I'll open up for comments in the
11 room.

12 MR. McKIRGAN: Come one guys let's do some
13 thinking.

14 MS. TAYLOR: Got to be some impacts.

15 MR. VAN NOORDENNEN: All right. Gerry Van
16 Noordennen. For us again, taking a Type-B cask, going
17 through a renewal, because we're in the U.S. we do the
18 renewal through the NRC first.

19 Once we get that then we ask the DOT to
20 authorize that provide their authorization. And then
21 we go to the international, other countries that are
22 using that cask.

23 So, take for instance, Canada. Know the
24 NRC and CNSC has an MOU to, you know, kind of accept
25 each others reviews on Type-B casks.

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1 But, for example right now on our 8120B,
2 it's being reviewed. The five-year renewal is going
3 on at CNSC. And they're doing a complete review.

4 And so, you know, that takes some time.
5 And of course, some expense. So, you know, extending
6 that term period would make it easier on us. We'd
7 only have to go through that once instead of twice
8 every ten years.

9 So, there's some benefit to us for doing
10 that. So, you know, a typical example of what we go
11 through.

12 MR. WHITE: Okay. Any other comments in
13 the room? If not, then we'll let you think for a
14 minute.

15 Any comments on the phone?

16 OPERATOR: Yes. As a reminder, press star
17 one if you'd like to ask a question or make a comment.
18 We've got Wren Fowler. Your line is open.

19 MR. FOWLER: Yeah. Kind of tagging onto
20 Gerry here. One thing to keep in mind too, one of the
21 differences between the NRC and a lot of other
22 international regulatory bodies has to do with how
23 they charge fees.

24 So the NRC's an hourly rate, right? But,
25 some of the international countries we have to deal

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1 with, whether it takes them two days or two years,
2 it's a flat fee.

3 So for us extending the term on a lot of
4 our transportation casks would actually have a
5 financial benefit for us. Because we wouldn't have to
6 go in and get and pay these flat fees for something
7 that is just as simple as a renewal.

8 MR. WHITE: Okay.

9 MR. McKIRGAN: Thanks for that Wren. Any
10 other comments on the phone?

11 OPERATOR: One moment. Okay. There is a
12 participant. And your name was not recorded. Can you
13 check the mute on your line?

14 MR. VESCOVI: Peter Vescovi, TN Americas.

15 OPERATOR: Okay. Your line is open Peter.

16 MR. VESCOVI: Okay. Yeah, I just wanted
17 to comment on the validations in the other countries.
18 It's been my experience that there's really no set
19 time frame in the other countries for certificates
20 that come in for validation or re-validation.

21 But they generally will just follow the
22 time frame and the expiration that the DOT sets on the
23 certificate. And then likewise, you know, DOT follows
24 the NRC's duration on the certificates.

25 So, I'm not sure that increasing or

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1 decreasing the duration, especially increasing it,
2 would necessarily have an unintended consequence with
3 the foreign validations in the other countries.

4 MR. WHITE: Okay. Thank you for that
5 comment. Any other comments on the line, on the
6 phone?

7 OPERATOR: Okay. Next we have Abdulsalam
8 Shakhathreh from Robatel Technologies. Your line is
9 open.

10 MR. SHAKHATREH: Hello, this is Abdul from
11 Robatel Technologies. My question is, has the NRC
12 made any significant recommendations on any renewal
13 applications from your 40 to 50 years experience?

14 Or in other words, has the NRC rejected
15 any renewal application? And what was the most common
16 ground for rejection?

17 I'm saying this because previously you
18 mentioned you have a very good safety record, or the
19 industry has a very good safety record. And so what
20 prevents us from extending the term to ten years?

21 And what is the NRC take on this? That
22 would be the end of my comment.

23 MR. MCKIRGAN: Why don't you start and
24 I'll chime in.

25 MR. WHITE: Okay. So, this is Bernie

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1 White of the NRC. I've been doing this, I've been
2 here for 28 years and we've never rejected a renewal
3 application.

4 That doesn't say we -- I won't say we
5 haven't asked questions on them before. But, we
6 haven't rejected or denied a renewal that I'm aware of
7 at least in those 28 years.

8 It seems to be that we'll ask a round or
9 two of questions. And eventually will come to the
10 resolution that, you know, whatever question we ask
11 that it has sufficiently answered to ensure, you know,
12 public health and safety. And so we will do the
13 renewal.

14 What is preventing you from -- preventing
15 us for going to a ten-year term, nothing. It's not in
16 our regulations. So we wouldn't need to do a regulat
17 -- a regulatory change.

18 And that's kind of why we're seeking
19 feedback, is ten years the right term? Is it 15? Is
20 it five? Is it three?

21 And so we're, you know, trying to get
22 feedback on what should be the proper term and the
23 basis for that term. So, I hope that answers your
24 question.

25 MR. SHAKHATREH: I just have a follow up

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1 question if you don't mind.

2 MR. WHITE: Um-hum. No.

3 MR. SHAKHATREH: So, can you use
4 historical data to have the regulatory basis for
5 keeping or extending the current term? We have a good
6 safety records.

7 Is that something you can consider? Or --

8 MR. WHITE: Absolutely. And I think
9 that's something we will consider as we move forward
10 with our decision.

11 MR. McCULLUM: Yeah Bernie, this is Rod
12 McCullum, NEI. I think that's a powerful statement.

13 Is you haven't found a reason not to renew
14 one in 28 years. It really does beg the question of
15 why we have to renew them every five years.

16 And we look forward to helping you shape,
17 you know, construct a basis for that.

18 MR. McKIRGAN: Yes. Thank you.

19 MR. SHAKHATREH: Okay. Thank you.

20 MR. McKIRGAN: Did that answer your
21 question there?

22 MR. SHAKHATREH: Yes. Thank you.

23 MR. McKIRGAN: Yeah. But it did, and so
24 operating experience is a big factor. You know, 71.95
25 reports, I was talking to somebody during the break,

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1 looking at those and I'll share with everybody that,
2 you know, we've looked at some of those a little bit.

3 And as we start to think about the nexus
4 between that operating experience and the term, not
5 all of that operating experience would have been
6 impacted by a term of five years or ten years.

7 And so operating experiences is important.
8 And it does contribute to our thinking in that -- in
9 extending this term. And we'll think about that more
10 fulsomely as we go forward.

11 But I wanted to come back to this, those
12 other impacts. Those internal domestic/international
13 impacts. And especially any unforeseen or unintended
14 consequences.

15 So, maybe we'll go back to the phone and
16 see if there's any further people queued up there.

17 OPERATOR: Yes. We've got Lori Podolak
18 from QSA Global. Your line is open.

19 MS. PODOLAK: Hi. I just wanted to touch
20 on the extending the time frame and the impact on, I
21 don't want to say just changes in standards, but
22 changes in maybe regulatory environment. How the
23 standards are applied.

24 We found even though we come in fairly
25 frequently, more often than the five-year renewal,

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1 that with staff turnover at NRC, people who maybe have
2 seen changes in the industry, changes in the way the
3 standards are applied, if you extend it too much
4 beyond like say, and maybe even pushing to ten years
5 might be pushing it, between the last renewal and the
6 next renewal, there could be a fairly substantial
7 change in what is considered acceptable or an adequate
8 level of detail or description or justification for
9 packages that have previously been approved.

10 So, I would just take care on, you know,
11 you don't want to go too far out. Because it makes it
12 difficult to -- especially if you haven't been in for
13 any kind of change between that ten-year period, it
14 could be kind of a culture shock when you try to get
15 it renewed again.

16 Because it can be a surprise that all of
17 a sudden things that were not an issue are now an
18 issue.

19 MR. MCKIRGAN: Okay. Thanks for that
20 Lori.

21 MR. WHITE: Any other comments on the
22 phone?

23 OPERATOR: Yes. Next we've got Aleksandr
24 Gilfond from EnergySolutions. Your line is open.

25 MR. GELFOND: Hello everyone. Just a

1 small comment from operational perspective. For
2 example as Gerry Van Noordennen, we've got a fleet of
3 Type-B casks, which is used by various CTOs just to
4 ship low level waste.

5 And in a lot of cases the requirements of
6 Chapter 7 of the Section Office Report as far as the
7 duration procedures, it's supposed to flow down to,
8 you know, point to specific procedures.

9 And you know, right now when we have
10 renewals of our casks, every time we have a renewal,
11 the regulators have to go through their procedures and
12 make necessary changes.

13 Even though there might be no changes in
14 application. But they still have to go and do this,
15 you know, due diligence process.

16 And we're talking about, you know, tests
17 of different shippers, tests of different companies
18 who use the casks.

19 So, from purely operational perspective,
20 if we extend the renewal, you know, time wise to let's
21 say from five to seven, eight, ten years, it would
22 decrease the burden from the, you know, utilities
23 shippers, the shipper from the review of the new, you
24 know, certificate division.

25 And basically I'm interested for the

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1 potential impact. That's my comment.

2 MR. MCKIRGAN: Thank you.

3 MR. WHITE: Thank you. Any other comments
4 on the phone?

5 OPERATOR: There are no other participants
6 on the phone queue.

7 MR. WHITE: Thank you very much. So one
8 of the other questions we wanted to bring up while
9 we're looking at, you know, the general discussion,
10 you know, we've had the discussion about, we see a lot
11 of amendments in between renewals.

12 Here at the NRC, you know, personally I
13 don't see a connection between the renewal term and us
14 getting more amendments. But I'm not on your side of
15 the house thinking about what your future work is, or
16 what your current work is in terms of what shipments
17 are going to be made.

18 Do you all see a nexus between the
19 certificate term and fewer or more amendments coming
20 in house?

21 (No response)

22 MR. WHITE: I see a lot of heads shaking
23 no.

24 MR. VAN NOORDENNEN: All right. This is
25 Gerry Van Noordennen from EnergySolutions. No, I

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1 don't see any nexus at all.

2 MR. WHITE: Okay.

3 MR. VAN NOORDENNEN: Amendments are driven
4 by customer's needs. And so that's why we do
5 amendments.

6 MR. WHITE: And that's kind of what we
7 presumed.

8 MR. VAN NOORDENNEN: Yeah.

9 MR. WHITE: And I'll use the word presumed
10 because again, we're not in your shoes.

11 MR. VAN NOORDENNEN: Yep.

12 MR. WHITE: So, thank you.

13 MR. McCULLUM: Yeah. And Rod McCullum,
14 actually on behalf of the industry, we like the fact
15 that it's very competitive out there. That
16 competitive market drives our member companies to be
17 responsive to customer needs.

18 And yeah, that is independent of renewals.
19 And if less resources are being spent on renewals,
20 that gives everybody more resources to focus on
21 meeting customer needs by doing amendments.

22 So, yeah that sounds like a win/win.

23 MR. WHITE: Okay. Thank you.

24 MR. McKIRGAN: Any folks on the phone want
25 to chime in on that point?

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1 OPERATOR: Currently there's no one in the
2 phone queue.

3 MR. WHITE: Okay. Good.

4 MS. TAYLOR: Okay. So next we're going to
5 go to like implementation challenges, costs, revisions
6 to internal processes.

7 I think we've kind of touched on this.
8 But does anyone have anymore to add? Again, and
9 another chance about if we were to change this term
10 are there any implementation challenges we haven't
11 already talked about?

12 You've talked about costs a little bit.

13 MR. WHITE: And I will say, I do want to
14 bring up that a lot of times we get renewal requests,
15 and there's amendments within that renewal request.
16 We treat those separately when we do our reviews.

17 So, I want to make it clear that if we get
18 an amendment, we're not asking questions on the
19 renewal if it's on the amendment. So in terms -- so,
20 you know, thinking about that, I don't know if that
21 spurs anybody to, you know, to add any further
22 comments.

23 And I don't know why I thought of it here.
24 Probably the word revision stuck out at me. So, any
25 comments from the room?

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1 MR. MATHUES: This is Glenn Mathues, Trans
2 Nuclear, TN Americas. The only time we would, is if
3 we had to amend a client need that would be close to
4 the renewal period.

5 We would have a call with the NRC at that
6 time to try to ferret that out. To make sure that if
7 they were separated, we'd put them together. Because
8 we've had a couple of experiences where we had some
9 ongoing shipments and we needed the renewal for those
10 continued shipments.

11 That's the only case that we would be
12 close too. Is making sure that the existing
13 certificate is renewed.

14 And we know there's the timely renewal and
15 all that, so.

16 MR. WHITE: Yeah. And thank you for that
17 Glenn. And I realize that. And I've heard from a few
18 people over the last, I'll go say six months that I
19 didn't realize international competent authorities
20 didn't have time, you know, like we do.

21 And it's because we don't deal with them.
22 And so I appreciate the conversations that we have
23 with, you know, EnergySolutions, TN ORANO now? ORANO.

24 You know, and others in terms of, you
25 know, what your needs are when you do submit a

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1 renewal. You know, if you need that renewal by a
2 certain time because of international leads, please
3 let us know.

4 Otherwise, we will not know. And we'll
5 process it, you know, along with our normal case work.
6 But we want to make sure that we don't do something
7 that negatively impacts you just because we didn't
8 know about it.

9 So, please keep that in mind as you're
10 thinking about this. Okay?

11 Any other comments for the room? If not,
12 we'll go to the phone. Any comments from the phone?

13 OPERATOR: As a reminder, press star one
14 and record your name and organization at the prompt.

15 MR. WHITE: No comments on the phone?

16 OPERATOR: Oh, one moment, there's a -- we
17 do have a comment coming in. One moment.

18 MR. WHITE: Okay.

19 OPERATOR: Okay. Tim Lloyd with
20 Westinghouse. Your line is open.

21 MR. LLOYD: Okay. And this is just sort
22 of clarifying. And to hear what I think I'm hearing.

23 It sounds like there really have only been
24 kind of potentially three categories of reasons why it
25 would be a bad idea to increase it. Especially given

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1 as Rod points out, the quite impressive track record
2 that there's been, and the lack of reasons for
3 rejecting.

4 But one is, you know, the possible specter
5 of new requirements having crept in. Another is that
6 you would have possibly lost expertise on the designer
7 or a CC license holder by waiting a longer period of
8 time.

9 And the third is maybe the NRC would have
10 lost expertise on reviewing a particular type of
11 package. I guess those are the three that I'm sort of
12 hearing.

13 On the other hand, doing a thing more
14 frequently might introduce errors. So there's also a
15 downside possibility there.

16 But, it seems like you do have to come
17 back to the fact that there's an awful lot of -- an
18 awful lot of good stories and good success, you know,
19 that are kind of counterbalancing.

20 But I don't think I'm really hearing any
21 other reasons that people think it would be a bad idea
22 to extend. And I can drop off.

23 MR. WHITE: Okay. Thank you.

24 MR. McCULLUM: Yeah, this is Rod McCullum.
25 I want to echo that. I mean, if the requirements

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1 change that's -- or unless they just happen to
2 coincidentally change when you're going for renewal.
3 That's something you have to address real time.

4 And I also think that if you're in the
5 business of providing these packages, you always have
6 to have expertise on the stuff. And then I would hope
7 NRC maintains its expertise as well. And we want you
8 to use it as smartly as possible.

9 So, I guess I would agree that, you know,
10 look at the bigger picture those reasons for not
11 extending are kind of overcome by, you know, the
12 safety record, the operational experience.

13 MR. WHITE: Yeah. In thinking about NRC
14 regulations, you know, we -- you think about the last
15 several major role changes we've done.

16 We did one in '85. We did one in '96,
17 2004, 2015. And right now we're gearing up to do
18 another one. Which will finish in about 2020.

19 So, we're somewhere on the order of about
20 an eight to a ten year on average, you know, probably
21 closer to ten. Because the older ones took a lot
22 longer because they were much larger changes, you
23 know, based on with harmonizing with IAEA regulations.

24 They were, you know, they were on about a
25 ten -- 10 to 11 year time frame. And I will say that

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1 when we do rule changes like that we always put in
2 transitional arrangements for packages that are
3 already approved.

4 You'll find them in 71.19. And so we kind
5 of grandfather packages in. But, if you come in for
6 an amendment, depending upon what it is, you know, you
7 have to -- we have to figure out, you know, kind of
8 where you fit in the process in terms of the rules.

9 So, and while I'm on the subject of rule
10 change, John's always putting in a shameless plug.
11 So, I'm going to do the exact same thing.

12 I made mention that we're in the process
13 of doing a rule change. We are currently working on
14 the draft regulatory basis for that rule change.

15 Which we should issue sometime this
16 summer. It's pretty vague. I realize June, July,
17 August is summer. And even up to Labor Day. But
18 somewhere in that time frame.

19 So, keep an eye out for that draft
20 regulatory basis. It will be published in the Federal
21 Register. And we'll be looking for comments on that.

22 MR. McCULLUM: So you're into Labor Day,
23 you're not going to take credit for the autumnal
24 equinox. Which I believe is later in September.

25 MR. WHITE: It is. And actually that is

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1 closer to my birthday. So, we can.

2 (Laughter)

3 MR. WHITE: Any other comments on the
4 phone?

5 OPERATOR: Yes. Wren Fowler from NAC.

6 MR. WHITE: Okay.

7 OPERATOR: Your line is open.

8 MR. FOWLER: Yeah. Hey Bernie and John,
9 I was just going to let you know, I just flipped
10 through TSR-1 real quick. And I can't find anywhere
11 in there where there is any duration on the foreign
12 validation certificate.

13 The only thing I can find is that it
14 requires an issuance date and an expiration date.

15 MR. WHITE: Yeah.

16 MR FOWLER: So, kind of like I was saying
17 before, the downstream from the NRC to DOT is seen
18 from us on our validations with terms of expiration
19 dates.

20 So, even though SSR-6 is the latest one,
21 I just had TSR-1 handy. And I can't find any time
22 frame in there.

23 MR. WHITE: Do you want it?

24 MR. CONROY: This is Mike Conroy at DOT.
25 And Wren's right. SSR-6 says the same as TSR-1. It

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1 just says there should be an expiration date.

2 Which is, I think what you said earlier
3 that's all that's in 10 CFR 71 as well.

4 MR. WHITE: Um-hum.

5 MR. CONROY: And in our DOT regulations
6 for 49 CFR, we don't have a time period in there
7 either. It's just been the practice to do five years
8 and to mirror what's in the NRC's certificates.

9 So then the question becomes, what, you
10 know, the foreign competent authorities do. And what
11 we see is almost all of them go with the five years.

12 Now, how many of those have those in their
13 regulations verses just staff practice, we'd have to
14 do some research on that.

15 MR. WHITE: And thank you Mike. And we
16 looked at the IAEA regulations just to make sure that
17 we weren't missing anything.

18 Because that's the basis to start since we
19 do harmonize with the IAEA. We're not identical. But
20 we're harmonized with them.

21 So, any other comments on the phone?

22 OPERATOR: No other comments on the phone.

23 MR. WHITE: Okay. Thank you. Any further
24 comments on this slide from the room?

25 MR. STRADER: I would be a fan for

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1 increasing it to ten years. For one reason is that
2 it's our, as an entity, our responsibility to make
3 sure that the containers meet the SAR after each use.

4 And so we have to do whatever minor
5 maintenance to it to -- for any update to it.

6 MR. WHITE: Um-hum.

7 MR. STRADER: So, we do that every time.
8 And for example, ours we use our packages just about
9 once a month.

10 And so those are inspected and reviewed
11 every time they come in to look at them. And we
12 ensure they meet the SAR.

13 And so whether or not you renew it every
14 five or ten years, it wouldn't impact us at all.

15 MR. WHITE: Okay. Other than submitting
16 a letter or an application every five or ten years.

17 MR. STRADER: Right.

18 MR. WHITE: Okay. Good. Thank you.
19 Anything else from the room?

20 (No response)

21 MR. WHITE: If not I'll turn it over to
22 Torre.

23 MS. TAYLOR: All right. Okay. So our
24 next steps in our schedule, again, we'll have the
25 transcript. And we'll evaluate all the comments from

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1 this meeting.

2 And we do welcome comments that you might
3 have post this meeting. We ask that you provide them
4 by May 25'ish just to make sure we have time to fully
5 evaluate them as we put together our remaining steps
6 on this.

7 I'll have my email and Bernie's email at
8 the end too.

9 MR. McCULLUM: Torre, just a clarification
10 on that. I mean, we may very well write you a letter
11 between now and May 25.

12 But, just because we like doing that.
13 But, everything here is transcribed and on the record.

14 MR. WHITE: Um-hum.

15 MS. TAYLOR: Yes.

16 MR. McCULLUM: So we -- the things you've
17 been hearing around this table are now officially
18 comments?

19 MR. WHITE: Absolutely.

20 MS. TAYLOR: Yes. That's true too.

21 MR. McKIRGAN: And if I could just
22 reemphasize for everybody. John McKirgan again.

23 You know, if you do send further comments
24 and certainly Rod, if you send a letter, please make
25 sure they are -- you're making comments in support of

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1 this public meeting. So we don't get confused. And
2 we want to make sure we capture them.

3 MR. McCULLUM: We'll reference the ML
4 number on those.

5 MR. McKIRGAN: That would be flawless.
6 Thank you. And for those on the phone, Rod is holding
7 up the public meeting notice.

8 So that would be great. Because we want
9 to make sure we capture this.

10 We get a lot of letters here at the NRC.
11 We have a lot of friends that write to us. And I want
12 to make sure we get them channeled to the right source
13 there.

14 So, thank you.

15 MS. TAYLOR: Good point. Okay. Again,
16 we'll be working on developing our basis based on this
17 discussion, our interactions we've had with DOT and
18 these studies.

19 Our response to OIG is due September 2018.
20 And I don't -- I know we're recognizing the request
21 for some public interaction there. So, we'll
22 consider, continue deliberating the best ways to do
23 that.

24 The slide 18 has my name, phone number,
25 email, as well as Bernie's name and phone number and

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1 email. Reach out to either one of us with any
2 comments related to the meeting.

3 You can send them pdf by email. What have
4 you. And if you have any questions, just feel free to
5 call one of us.

6 Bernie can answer more of the technical,
7 type of questions. I can do a lot more on the process
8 of this.

9 And I guess last opportunity for comments
10 from anyone on the phone and in the room.

11 (No response)

12 MS. TAYLOR: All right.

13 MR. McKIRGAN: Anyone on the phone?

14 MS. TAYLOR: Anyone on the phone?

15 OPERATOR: No. There are no participants
16 in the queue.

17 MS. TAYLOR: And then so okay. We'll turn
18 it back to John for his closing.

19 MR. McKIRGAN: Great. So thank you Torre.
20 Thank you Bernie. And I want to thank everybody. I
21 do, I very much appreciate all those here in the room
22 and on the phone.

23 I know you all have work to do. And your
24 time is very valuable to you and to me. And so I do
25 appreciate you all coming out.

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1 You can see that, you know, we are trying to get
2 your inputs. We want to make sure we do this right.
3 We don't want unintended consequences.

4 We don't want to come in with a bunch of
5 make work, really. If we do this wrong, it could
6 generate a lot of challenges for us all.

7 So I do, I appreciate the comment -- the
8 comments that we've received today. And I also
9 welcome, in addition to your comments on the substance
10 of this, I welcome any thoughts or comments you had on
11 the meeting itself.

12 We always value feedback on our public
13 meetings. I myself particularly enjoy the Category
14 Three meetings where there is a very active dialog.

15 And I think we had a lot of that today.
16 And so I very much appreciate that.

17 I appreciate when the participants can ask
18 questions of each other. I think the NRC and perhaps
19 you all also benefit from hearing those exchanges.

20 And so I really appreciate everybody's
21 willingness to participate in those kinds of
22 exchanges.

23 And Torre's got another.

24 MS. TAYLOR: Let me add one thing about
25 the feedback. I do have feedback forms in the back of

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1 the room that you can take with and fill out. Or fill
2 out here and leave them with me.

3 But also, for those on the phone, we've
4 discovered that the feedback form is automatically
5 uploaded into the meeting notice. And there should be
6 a way to get to it there as well.

7 If you have trouble finding it and you
8 want to submit feedback, I can easily send you a pdf
9 of it. And you can fill out the feedback form and get
10 it back to the agency that way.

11 MR. McKIRGAN: Yeah. So, yeah, thank you.
12 Thank you Torre. And so we do appreciate feedback on
13 these meetings.

14 So again, my thanks to all of you here and
15 on the phone. And we would welcome any additional
16 comments that you'd like to provide.

17 And have a great rest of the day. It's a
18 beautiful day here in Washington. So, please get out
19 and enjoy it.

20 Thanks everyone.

21 MS. TAYLOR: Okay. And that issue --

22 OPERATOR: That will close today's
23 conference. You may disconnect your lines at this
24 time.

25 Torre, can you hear me?

1 MS. TAYLOR: I'm sorry?

2 OPERATOR: Oh, you wanted a final line
3 count.

4 MS. TAYLOR: Oh yes. Thank you. I'm
5 sorry.

6 OPERATOR: There were 28 participants on
7 total today.

8 MS. TAYLOR: Twenty-eight participants.
9 Okay.

10 OPERATOR: All right. And thank you. And
11 I hope you have a wonderful afternoon.

12 MS. TAYLOR: Thank you so much for your
13 support and making it easy.

14 OPERATOR: All right. Thank you. Bye-
15 bye.

16 (Whereupon, the above-entitled matter went
17 off the record at 3:35 p.m.)

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Certificate of Compliance Expiration Term

Torre Taylor
Sr. Project Manager
Division of Spent Fuel Management

Outline of Presentation

- OIG report and recommendation
- Staff response
- Process for development of expiration term
- General Discussion
- Next steps/schedule
- Contacts
- Questions

OIG Audit

- **OIG report**
 - “Audit of NRC’s Oversight for Issuing Certificates of Compliance for Radioactive Material Packages (OIG-17-A-21),” dated August 16, 2017
 - **Objective of audit**
 - Determine if NRC’s processes for issuing certificates of compliance and reviewing 10 CFR Part 72.48 changes provide adequate protection for public health, safety, and the environment

OIG Recommendations

1. Conduct an analysis to develop the regulatory and technical bases for the part 71 certificates of compliance term
2. Document and communicate to stakeholders NRC's analysis results identifying the bases for an appropriate term for Part 71 certificates of compliance
3. Establish sufficient internal controls by updating NRC guidance related to Part 72.48 review procedures
4. Establish sufficient internal controls by developing and implementing training for part 72.48 review process

OIG Recommendation 1

- Recommendation 1
 - Conduct an analysis to develop the regulatory and technical bases for the Part 71 Certificates of Compliance expiration term
- Purpose of this meeting is to discuss Recommendation 1

Staff Response

- The staff, in consultation with the U.S. Department of Transportation, will conduct a technical and regulatory analysis to develop a basis for the duration of NRC-issued certificates of compliance for radioactive material packages
 - Staff will consider risk insights from existing studies performed on transportation risk of spent fuel and solicit stakeholder input, including input from international counterparts

Staff Response

(continued)

- Will develop technical and regulatory bases to establish an appropriate term for certificates of compliance for transportation packages
- Document the results
- Communicate results to stakeholders
 - Post on the NRC public web site
 - Communicate to stakeholders, such as the DSFM regulatory conference (REG CON)

Staff Response

(continued)

- Existing Studies and Risk Estimates
 - NUREG-0170, “Final Environmental Statement on the Transportation of Radioactive Material by Air and Other Modes,” September 1977
 - Vol. 1: ML022590265
 - Vol. 2: ML022590511

Staff Response

(continued)

- Fischer, L.E., et al., “Shipping Container Response to Severe Highway and Railway Accident Conditions,” NUREG/CR-4829 (UCID-20733), Lawrence Livermore National Laboratory, Livermore, CA, February 1987

Staff Response

(continued)

- NUREG/CR-6672, “Reexamination of Spent Fuel Shipment Risk Estimates – Main Report,” March 2000
- NUREG-2125, “Spent Fuel Transportation Risk Assessment,” January 2014

Process for Development of Appropriate Expiration Term

- Consulted with DOT
- Consult with stakeholders
 - This public meeting
- Use information from risk studies to inform staff recommendations
- Develop a technical and regulatory bases for an appropriate expiration term

General Discussion

- What factors should NRC consider as it evaluates a regulatory and technical bases for expiration term?
 - Stability of regulatory environment
 - Institutional Stability
 - Technological Stability
 - Other?

General Discussion

- How should we factor in risk?
 - How does human factors/error relate to the expiration term?
 - Are there other risk contributors that correlate to the expiration term?

General Discussion

- What are the impacts if there were a change in the certificate expiration term?
 - Domestic
 - International
 - Impact on international transportation
 - IAEA requirements

Items for Discussion

General Discussion

- What are the implementation challenges if the NRC were to change the expiration term?
 - Costs
 - Revisions to internal processes

Next Steps/Schedule

- Evaluate comments from this meeting and internal evaluations
 - We welcome comments related to this public meeting
 - Please provide comments no later than May 25, 2018

Next Steps/Schedule

(continued)

- Develop a regulatory and technical bases for the expiration term for certificates of compliance
 - Based on discussions in this meeting
 - Our interactions with DOT
 - Review of existing studies and risk estimates
- Response due to OIG September 2018

Contacts

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Questions

Acronyms

- DOT – Department of Transportation
- DSFM – Division of Spent Fuel Management
- IAEA – International Atomic Energy Agency
- NRC – Nuclear Regulatory Commission
- OIG – Office of the Inspector General