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 Prompt Remediation During Operations

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1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

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4 OFFICE OF FEDERAL AND STATE MATERIALS AND

5 ENVIRONMENTAL MANAGEMENT PROGRAM

6 + + + + +

7 DIVISION OF WASTE MANAGEMENT AND ENVIRONMENTAL

8 PROTECTION

9 + + + + +

10 MEETING REGARDING CONSIDERATION OF RULEMAKING TO

11 ADDRESS PROMPT REMEDIATION DURING OPERATIONS

12 + + + + +

13 MONDAY

14 JULY 25, 2011

15 + + + + +

16 The Meeting convened via teleconference at
17 1:00 p.m. Eastern Daylight Time, Lance Rakovan,
18 Facilitator, presiding.
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P R O C E E D I N G S

1:02 p.m.

MR. GLENN: I'm Chad Glenn of the
Materials Decommissioning Branch in the Division of
Waste Management and Environmental Protection at NRC.

Welcome and thank you for taking the time
to participate in this public webinar.

The purpose of this webinar is to obtain
input on a potential rulemaking to address prompt
remediation of residual radioactivity during
operations.

To help facilitate discussion, NRC has
developed a draft proposed technical basis that
identifies a conceptual or strawman approach for
addressing prompt remediation during operations along
with other alternatives we considered.

Today, we want to hear from you. Get your
input and comments on this topic.

To help focus today's discussion and to
provide some context on the topic, we'll start with a
brief overview presentation that we hope you will find
useful.

Following this presentation, we've
identified specific questions for your consideration
and comment.

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1 At this time, I'd like to introduce our
2 facilitator Lance Rakovan who will get us started and
3 keep us on track if we get stuck along the way.

4 Lance.

5 FACILITATOR RAKOVAN: Thanks, Chad.

6 My name is Lacey Rakovan. I'm a
7 Communications Specialist here at the U.S. Nuclear
8 Regulatory Commission or NRC and I'm going to be kind
9 of helping keep things on track and make sure that
10 everyone has a chance to participate in today's
11 meeting.

12 Before we kind of really got things
13 started, I wanted to go over what to expect from today
14 and go over a few ground rules in terms of
15 participation.

16 The purpose of our meeting today is for
17 NRC to inform members of the public on our
18 consideration of rulemaking to address prompt
19 remediation of residual radioactivity during
20 operations and, of course, to get your input.

21 Now, our agenda today is pretty simple.
22 We're going to start out with a brief presentation by
23 Jim Shepherd. Jim is a Project Engineer here at the
24 NRC and he's involved with our activities on
25 decommissioning ground water for over a decade.

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1 Then it'll be essentially opening up and
2 looking for your comments. We've got a number of
3 specific questions that we'll be using to frame those
4 discussions and we'll be getting to those a little
5 later.

6 Those questions along with other materials
7 you may need for this meeting are posted on our
8 website. The web link to that if you will is posted
9 right now on the screen for those of you participating
10 by webinar. I'm told the easiest way to get there is
11 to just go to our website which, of course, is nrc.gov
12 and put decommissioning in the search engine and the
13 page should come up. You'll find all the materials
14 that you need for today's meeting including the
15 presentation and again, the questions that we'll be
16 using today will be there.

17 Now, if you're participating by webinar,
18 basically, that's all you have to do. Is sit still
19 and we'll be getting to those questions and they'll be
20 right in front of you.

21 If you want to participate in the
22 discussion once we open things up, there's a couple of
23 ways you can do it. If you're on the webinar, you can
24 use the raise your hand feature and send in a question
25 electronically. We'll be taking those questions and

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1 reading those out loud so that everyone can hear them.

2 If you'd rather participate by phone, we
3 do have an operator, Carol, who is assisting us today.
4 She'll go through the specific steps that you need in
5 order to participate. I believe it's going to be to
6 *1, but don't quote me on -- or *1. Don't quote me on
7 that. Carol will go through those once we get to that
8 part of the meeting.

9 We do have a number of people who have
10 signed up to participate today and we want to make
11 sure we get -- hopefully give everyone a chance to
12 speak. So, once we do open it up for comments, we do
13 ask that you keep your comments to a couple minutes to
14 begin with. Once we've gone around and give everyone
15 a chance to say something, we'll go ahead and kind of
16 loop back and give seconds and thirds if we have the
17 time and we have the people who want to speak.

18 Please note that unless it's kind of a
19 clarifying question, if you will, the NRC staff really
20 wants to be the listen mode once we get to that point
21 of the meeting because, again, we're looking to get
22 your input on this concept.

23 Keep in mind that this webinar is only one
24 way that you can participate and provide your comments
25 as outlined in the Federal Register and we'll be going

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1 into detail about the other ways that you can give
2 your input later on in our presentation.

3 This meeting is being transcribe. We do
4 have a transcriber who is going to be helping us get
5 a word-for-word account of this meeting and again,
6 that's just because we want to make sure that we get
7 your input in a clear fashion.

8 If anything's going on during this meeting
9 that's kind of getting in the way of getting a clear
10 transcript and by this, I mean more than one person
11 talking at a time, not being able to hear someone
12 clearly, excessive background noise, et cetera, then
13 I'll probably be stepping in just to kind of solve
14 that situation, if you will, so that we can get back
15 to having a clear one-person speaking kind of
16 transcription going on.

17 One of the things that you will find on
18 the page for this, the webpage for this, is a public
19 meeting feedback form along with the presentations and
20 other materials. If you could take a moment, print
21 that out, fill it out and let us know how we did today
22 and drop it in the mail. That'll get to us and
23 that'll give us a good idea as to what you thought of
24 today's virtual meeting.

25 Okay. I think that's pretty much all I

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1 wanted to go through to start out with. I'm going to
2 turn things over to Jim for his presentation.

3 Once he's done, we'll open up the phone
4 lines at that point to see if there's any clarifying
5 questions that you may have on the material that he
6 presented and then we'll go ahead and start going
7 through the framing questions one by one so you can
8 start making your comments.

9 With that, I'll ask that you hold your
10 questions, of course, until Jim is done and I'll turn
11 things over to Jim.

12 MR. SHEPHERD: Thank you, Lance. I'm Jim
13 Shepherd of the Reactor Decommissioning Branch of the
14 Division of Waste Management and Environmental
15 Protection.

16 As Chad said, the purpose of this webinar
17 is to obtain stakeholder input to assist us in
18 developing a technical basis for a potential
19 rulemaking that would require licensees to promptly
20 remediate radiological contamination especially that
21 from unplanned releases.

22 We're taking this action in response to a
23 Commission directive that was part of the approval of
24 the publication of the draft decommissioning planning
25 rule.

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1 I'll make a short presentation giving you
2 the background of this effort and our proposed
3 approached to a potential rule. We'll then have
4 general comments or questions on the presentation.

5 There are also nine specific questions we
6 ask to focus our discussion in the Federal Register
7 notice. We will go through those one at a time in a
8 few minutes.

9 Following staff review of the
10 implementation of the 1997 License Termination Rule,
11 the Commission in 2003 directed the staff to develop
12 rulemaking to address potential legacy sites. As a
13 result, the staff developed the Decommissioning
14 Planning Rule which requires licensees to minimize the
15 introduction of radiological contamination into the
16 site environment. The rule also requires licensees to
17 survey and control radiological contamination. It
18 does not, however, require licensees to remediate
19 during the operational phase of the plant life.

20 The proposed rule was published for
21 comment in the Federal Register on January the 22nd,
22 2008. The final rule was published in the Federal
23 Register on June the 17th. It has an effective date
24 of 18 months. That is in December of 2012.

25 In approving the Decommissioning Planning

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1 Rule, the Commission also directed the staff to make
2 further improvements to the decommissioning planning
3 process by addressing remediation during operations.
4 Which we also call prompt remediation.

5 As part of that effort, the staff is
6 seeing comments on whether or not a rule should be
7 developed and if so, what that rule should require.
8 This webinar is a major part of that outreach effort.
9 The action is being taken at this time as a follow-on
10 potential rule that could be a change or addition to
11 the decommissioning planning rule that was published
12 last month.

13 To accomplish the task and to facilitate
14 the discussion with the stakeholders, staff has
15 developed a strawman that presents one approach to the
16 task in the form of a draft proposed technical basis.
17 The staff has not selected a final course of action.

18 The following slides present one concept
19 of a response to the Commission directive. After
20 presenting this option, we will receive questions and
21 comments from the stakeholder on the strawman and
22 after that, we will discuss the specific questions in
23 the Federal Register notice.

24 The staff's preferred approach to the
25 potential rulemaking has two parts. The first part

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1 would be a proposed rule that would require licensees
2 to promptly remediate contamination if it exceeds some
3 specified threshold. The preferred thresholds are
4 concentrations in on-site soil exceed the NRC
5 screening values or concentrations in on-site ground
6 water exceed EPA maximum contaminate levels.
7 Thresholds are among the issues on which we're seeking
8 comments from the stakeholders.

9 The second part of this concept allows
10 some relief from this rule in that it allows licensees
11 to request delaying remediation even until the time of
12 license termination if that action could be justified
13 by one or more of the following. The site conditions
14 including the unplanned releases meet the principles
15 of as low as reasonably achievable for the site.
16 There are operational safety concerns that would limit
17 remedial action. There is a dose assessment that
18 shows the contamination will either decay naturally or
19 otherwise decrease to less than the unrestricted
20 release limits by the time of license termination or
21 there is a cost-benefit analysis including disposal
22 costs now and disposal costs at the proposed
23 remediation time that demonstrates a very high cost
24 for the prompt action or perhaps some other reason
25 which is also an item for stakeholder input.

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1 As part of developing the draft technical
2 basis for a potential future action, staff considered
3 several alternatives to the proposed rule.

4 The first alternative we considered was a
5 different rule. That different rule would require
6 prompt remediation if contamination would result in a
7 dose of 100 millirem per year to the public. Delaying
8 remediation would not be permitted in this
9 alternative.

10 The staff did not select this alternative
11 in part because of the resource requirements and the
12 inherent challenges in dose calculations. The added
13 licensee burden compared to measuring concentrations
14 did not appear to be justified by improved public
15 health and safety. Also, there are other existing
16 regulations such as 10 CFR 20.1301 and 20.1403 that
17 already limit public exposure to 100 millirem.

18 Another option the staff considered was to
19 establish an agency policy that would issue site
20 specific license conditions by order if necessary
21 requiring the licensee to conduct prompt remediation
22 if the site conditions exceed some threshold such as
23 the restricted release limits of 10 CFR 20.1403.
24 However, issuing site specific license conditions
25 without a regulation to define the thresholds would

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1 likely result in inconsistencies in the application of
2 such a policy because of the wide variation in the
3 licensee types and processes. Also, this alternative
4 is not directly responsive to the requirement for
5 developing a technical basis as directed by the
6 Commission.

7 Another option the staff considered was to
8 issue guidance. Either new guidance or as a revision
9 to existing guidance that would encourage licensees to
10 promptly remediate or at least conduct cost-benefit
11 and other analyses to determine how to most
12 effectively manage unplanned releases. Such
13 guidelines could not rely on the requirements of the
14 recent Decommissioning Planning Rule because that rule
15 does not require prompt remediation. Also, because
16 guidance is not binding, this alternative is not
17 directly responsible to the Commission direction.

18 For completeness in developing the draft
19 proposed technical basis, staff also considered a no-
20 active alternative. It also is not responsive to the
21 requirements to develop a technical basis.

22 Staff is also seeking input on other
23 alternatives to the proposed rule that it should
24 consider.

25 That concludes the presentation of the

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1 staff's proposed position.

2 If you have any questions or comments on
3 the presentation, you may ask them now either by the
4 web or by pressing *1 on the phone as explained
5 earlier.

6 After we have these questions resolved,
7 we'll move on to the questions in the Federal
8 Register.

9 Remember the phone line is being
10 transcribed so we capture all of your comments and it
11 will become an official part of the record of this
12 meeting.

13 Carol, would you please start accepting
14 questions from the participants.

15 OPERATOR: Thank you. As a reminder on
16 the phone line, please *1 if you would like to ask a
17 question. Please unmute your phone and record your
18 name clearly at the prompt. Once again, that's *1 if
19 you would like to ask a question.

20 FACILITATOR RAKOVAN: And again, this is
21 Lance. We're looking specifically for clarifying
22 questions on Jim's presentation at this point. We
23 will be moving to the kind of framing questions that
24 will be used to see if we can get your comments
25 afterwards and again, if you are going to ask a

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1 question or make a comment, we ask both for your name
2 and your affiliation so we can make sure that we have
3 it on the transcript specifically in case we want to
4 get back to you if there was something that was stated
5 that we're entirely clear about.

6 We'll pause for a moment to allow a queue
7 to form if necessary. If you are participating by the
8 webinar and want to raise your hand and send in a
9 question that way, you can do that as well. So, we'll
10 be pausing for a second.

11 Carol, just jump in and let us know if you
12 do receive any questions. We'll give this a couple of
13 minutes and then if not, we'll proceed to the framing
14 questions.

15 OPERATOR: Thank you and I do have a
16 couple of questions on the phone lines. The first
17 question is from Anine Grumbles from Washington
18 Department of Health. Your line is open.

19 MS. GRUMBLES: Thank you.

20 Is this specific only to nuclear power
21 plants or would this be congruent throughout all of
22 the decommissionings or throughout licensing?

23 MR. SHEPHERD: This is Jim Shepherd. Any
24 potential rule we believe at this point would apply to
25 all licensees of all types during the operational

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1 phase of the plant life.

2 MS. GRUMBLES: Well, you're saying plant.

3 MR. SHEPHERD: Facility.

4 MS. GRUMBLES: Okay. Thank you.

5 OPERATOR: And our next question will be
6 from Scott Kirk, Waste Control Specialist. Your line
7 is open.

8 MR. KIRK: Hello, Jim. This is Scott.

9 I have a question about your alternative
10 with respect to specific license conditions. Were you
11 sort of thinking that you might be able to tie
12 specific license conditions to like an environmental
13 monitoring program such as you would have
14 investigation levels, action levels and regulatory
15 limits and say, for example, you tripped your
16 regulatory limit as you have in your environmental
17 monitoring plant that goes hand-in-hand with the
18 license and that would trip the requirement for doing
19 immediate remediation?

20 MR. SHEPHERD: We haven't really developed
21 the details yet. We're very much early in this
22 process. So, input such as you just gave is very
23 helpful in getting us to come up with a position if
24 that is the alternative we select.

25 MR. KIRK: Okay. And then my next

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1 question, with respect to the MCLs, have you guys
2 thought about policy implications? When you were
3 going through the Decommissioning Rule many, many
4 years ago, there was an issue about having a separate,
5 you know, standard for the MCLs. But, you guys ruled
6 to having an all pathway sum in the decommissioning
7 criteria and this seems to be -- if you were to select
8 that option, this would seem to be a step backwards.

9 MR. SHEPHERD: Yes, we recognize that
10 there is some potential conflict in the policy and
11 that's something we'd have to work out.

12 MR. KIRK: All right. Well, thank you
13 very much. I just want to commend you folks for
14 taking this important step forward. That's the end of
15 my comments.

16 MR. SHEPHERD: Okay. Thank you, Scott.

17 OPERATOR: And the next question is from
18 Tommy Houston, Department of Veterans Affairs. Your
19 line is open.

20 DR. HOUSTON: Thank you. My question was
21 just about the proposed rule that, you know, the
22 staff's selection at this point. You mentioned that
23 it would involve prompt remediation if the
24 concentrations in the soil and ground water exceeded
25 some threshold.

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1 Is there also a threshold that would be
2 provided for surface contamination, you know, for
3 building surfaces or are those not going to be
4 considered as part of the rule?

5 MR. SHEPHERD: We had not identified those
6 at this point, but we will certainly take that as an
7 item for consideration if we elect to develop a rule.
8 Thank you.

9 OPERATOR: Our next question will be from
10 Glenn Vickers, Exelon. Your line is open.

11 MR. VICKERS: Yes, in nuclear power, the
12 final site release is done based upon dose and we back
13 calculate concentrations in the field.

14 If we set concentration thresholds, there
15 could always been some kind of a mismatch depending on
16 say how deep the contaminate is in the soil. But, I
17 think there would be some intermediate tie necessary
18 to go from concentration thresholds to your site
19 specifics.

20 And a second point, is if we did do a
21 dose-based calc, perhaps a common code like RESRAD,
22 might that be a code that we could all use, NRC and
23 licensees, so that we could perform and get the same
24 types of results? Do you have any comments?

25 MR. SHEPHERD: Well, on your second point,

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1 when we come to license termination and measuring the
2 residual radioactivity for compliance with release
3 limits, I think everyone -- at least everyone so far
4 has used RESRAD which is the code that the NRC uses to
5 verify things.

6 In terms of the connection or
7 disconnection between dose and concentration,
8 calculating dose during operations can be complex.
9 For example, dose to whom? Where are they standing?
10 At what point in time do we calculate it? Whereas,
11 concentrations on the site are a rather
12 straightforward evaluation and we thought it would be
13 easier to start there and given that concentration,
14 licensees could then either remediate or propose that
15 they do so at some later time and get into the more
16 detailed analysis.

17 OPERATOR: Thank you. Our next question
18 will be from Kathy Yhip, NEI. Your line is open.

19 MS. YHIP: Thank you. Good morning,
20 everyone and thank you for allowing us to participate
21 in the potential rulemaking.

22 I'm speaking on behalf of the Nuclear
23 Energy Institute and we wanted to take this
24 opportunity to actually get some clarification on the
25 NRC's perspective, the underlying line of thinking and

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1 the breadth of the potential rule particularly with
2 regards to the rulemaking and the justification for
3 the rulemaking. The Federal Register notice describes
4 the NRC as having experience with approximately 100
5 sites where there were concerns raised about becoming
6 potential legacy sites and so, we're hoping the NRC
7 would share that list of 100 sites with us so that we
8 could look at the basis. Because our experience has
9 been that we've been so far successful in performing
10 decommissioning as needed. Is it possible for you to
11 share that list of the 100 sites with us?

12 MR. SHEPHERD: Yes, this is Jim Shepherd.
13 I believe it is, Kathy. Let me look at that report.
14 I think it is available in the public. If not, I'll
15 get it so that it is.

16 MS. YHIP: Okay. Thank you.

17 OPERATOR: And at this time, I'm showing
18 no further questions.

19 FACILITATOR RAKOVAN: Okay. It doesn't
20 appear that we have any questions through the webinar
21 itself electronically as well. So, let's go ahead and
22 move on to the framing questions if you will seeking
23 public comment on this consideration.

24 If we could go to the first question on
25 the webinar side please.

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1 Okay. Our first question, and again,
2 there are nine questions total that we're looking to
3 frame, show NRC conduct new rulemaking on prompt
4 remediation and if so, why?

5 Again, what we're looking for is everyone
6 to give a brief comment if you will. We do have a
7 number of questions to get through and we do have a
8 lot of people participating. So, if you're interested
9 in coming on the line, again, you want to hit *1. If
10 you'd like to participate through the webinar, just go
11 ahead and send it in and we'll get to that and read
12 it.

13 Carol, whenever you're ready.

14 OPERATOR: I do have a few questions from
15 the phone lines.

16 FACILITATOR RAKOVAN: Bring them on,
17 Carol.

18 OPERATOR: Thank you and I believe it was
19 Ralph Anderson, NEI. Your line is open.

20 MR. ANDERSON: Thank you very much. Good
21 afternoon, Jim. Thank you for a good summary
22 presentation of the potential rulemaking.

23 I just had two questions in this regard.
24 You keep referring to prompt remediation. My
25 understanding is that that's being narrowly construed

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1 as decontamination and not inclusive of a method that
2 is most often used now at Superfund sites known as
3 monitored attenuation.

4 Am I correct in that the assumption behind
5 prompt remediation is active decontamination as
6 opposed to techniques such as monitored attenuation?

7 MR. SHEPHERD: Basically, if you look at
8 the two parts of the first proposed idea, the first
9 part of that would be active decontamination. The
10 second part would be the licensee shows us how either
11 natural attenuation or natural decay or something else
12 would cause a reduction of the radioactive
13 contamination at the point that it would not require
14 active remediation of the time of license termination.

15 MR. ANDERSON: Okay. Well, then that
16 leads me to my comment then on this specific question.
17 Both the screening criteria and the MCLs implicitly
18 are a fraction of the 25 millirem from virtually any
19 scenario in that they're both indicative of ultimate
20 dose levels at least through the experience that we've
21 seen that would be a small fraction of 25 millirem in
22 a year and yet, you're underlying basis for the rule
23 is to avoid legacy sites which would imply some level
24 of contamination that well exceeded those values to
25 the extent that it could create financial

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1 impossibility for the licensee.

2 So, my comment is that those proffered
3 values seem to be way out of line with the ultimate
4 purpose of the rulemaking. So, that's where my
5 comment would come in. If indeed the basis is to
6 avoid legacy fights as opposed to simply be able to
7 undertake the decontamination.

8 MR. SHEPHERD: Okay. Thank you for that
9 insight, Ralph.

10 FACILITATOR RAKOVAN: Carol, do we have
11 any other commenters at this point?

12 OPERATOR: Yes. It looks like our next
13 question is going to be from David Lochbaum from the
14 Union of Concerned Scientists. Your line is open.

15 MR. LOCHBAUM: Good afternoon. We do not
16 believe that the NRC should conduct rulemaking to
17 address remediation of residual radioactivity during
18 the operational phase for the reason that there are
19 existing regulations that, if enforce, would be
20 sufficient to address the question.

21 We've uploaded comments to
22 www.regulations.gov that cover my comments in more
23 detail, but briefly, we believe the general design
24 criteria in 60 in Appendix A to 10 CFR Part 50,
25 control of releases of radioactive materials to the

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1 environment along with general design criteria in 64
2 in Appendix A to 10 CFR Part 50, monitoring
3 radioactivity releases along with Appendix B to 10 CFR
4 Part 50, quality assurance criteria for nuclear power
5 plants and fuel reprocessing plants and 10 CFR 50.34,
6 contents of applications technical information, 10 CFR
7 50.34(a), design objectives for equipment to control
8 releases of radioactive material and effluence nuclear
9 power reactors and lastly, 10 CFR 50.59, changes tests
10 and experiment, adequately address the issue control
11 of and remediation of radioactive material that come
12 out of nuclear power plants through leaks, spills and
13 other unplanned mechanism, pathways.

14 So, we don't think a new regulation on top
15 of existing regulations would service any useful
16 purpose. It would be not efficient. It could be
17 confusing and wouldn't get to the destination that the
18 existing regulations would achieve.

19 Thank you.

20 MR. SHEPHERD: Thank you, Dave.

21 FACILITATOR RAKOVAN: Okay. We've got a
22 question that's been asked electronically through the
23 webinar that I'd like to get to. It was asked by Ron
24 Lovera.

25 Under the preferred approach, you are

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1 proposing using concentration values. Would that be
2 the concentration of the fluid leaking into the ground
3 or some other sampled concentration? If it is a
4 sampled concentration, what would be the criteria for
5 using the sample point over another?

6 MR. SHEPHERD: To the first half, yes, it
7 would be the sample of the concentration because
8 that's what would have to be remediated in order to
9 meet release criteria.

10 We have not got to the level of detail as
11 to defining which sample point should be used.
12 Generally speaking, closer to the source is better
13 because it's more accurate. But, we have not gotten
14 to that level of detail yet.

15 OPERATOR: I do have another question on
16 the phone lines.

17 FACILITATOR RAKOVAN: Okay. Go ahead,
18 Carol.

19 OPERATOR: Thank you. Kathy Yhip, NEI,
20 your line is open.

21 MS. YHIP: Thank you. With regards to the
22 basis for the potential new rulemaking, it would be
23 helpful for us if we could better understand how this
24 rulemaking is being considered from the perspective of
25 risk informed regulation.

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1 FACILITATOR RAKOVAN: Hold on please.

2 MS. YHIP: Thank you.

3 FACILITATOR RAKOVAN: Sorry, Kathy. If
4 you could ask that again please.

5 MS. YHIP: Certainly. The preferred
6 approach as stated by the NRC and also the overall
7 consideration for this rulemaking, we'd like to be
8 able to understand better the NRC's line of thinking
9 with regards to how this fits into a risk informed
10 regulatory scheme.

11 MR. SHEPHERD: Challenging question,
12 Kathy. I think the second half of the proposed
13 approach where one would do some kind of analysis to
14 show that prompt remediation is not necessary would be
15 a risk-based approach to doing that.

16 MS. YHIP: So, does that mean the endpoint
17 from a timing perspective for comparison would
18 normally be at the time of decommissioning. Is that
19 what one is comparing today's concentration to?

20 MR. SHEPHERD: Well, at the time of
21 decommissioning, of course, everybody has to meet the
22 25 millirem for unrestricted use.

23 MS. YHIP: Understood.

24 MR. SHEPHERD: Is your question do they
25 have to meet 25 at the time they detect something

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1 above the screening values. Is that what you're
2 asking?

3 MS. YHIP: That certainly is a subset of
4 the overall need for prompt remediation compared to
5 remediation at the time of decommissioning. Yes.

6 MR. SHEPHERD: We haven't yet specified
7 how much remediation needs to be done or what the
8 criteria would be for a licensee to say that they had
9 completed remediation based on a specific event.

10 I will take your question as a comment to
11 be considered. If we decide to do rulemaking, what
12 that level might be should be part of the proposed
13 rule.

14 MS. YHIP: Appreciate that. Thank you.

15 FACILITATOR RAKOVAN: Okay. It appears we
16 have another question coming electronically from the
17 webinar.

18 It's from Harvey Leson or Leson. The
19 basis for the rule appears to be legacy site
20 prevention. However, the rule appears to be in
21 conflict with clean up requirements already existing.
22 The proposed thresholds appear to be much lower than
23 that which might be applied to decommissioning levels.
24 It is important to look at the basis of what might
25 make a future legacy site in order to define the scope

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1 of these regulations.

2 Carol, do we have any other comments
3 electronically?

4 OPERATOR: Yes, I do. The next question
5 will be from Mark Ledoux, Energy Solutions. Your line
6 is open.

7 MR. LEDOUX: Thank you. In order to
8 answer this question, it kind of relates back to the
9 comment by NEI. It's really difficult to understand
10 the breadth of the problem.

11 It would be really helpful, and I know you
12 hinted at this earlier, to have some imperial data.
13 You know, how much dose, how much cost and so forth on
14 this. It would really help to have some of that
15 information to see how big the problem is rather than
16 just what we have right now.

17 FACILITATOR RAKOVAN: Okay.

18 MR. SHEPHERD: Okay. Thank you.

19 FACILITATOR RAKOVAN: We've got another
20 comment or question that we're going to take
21 electronically from Chris Graham.

22 The EPA MCLs strictly apply to drinking
23 water. Not all ground water is suitable for drinking.

24 How would this apply to ground water that
25 is unsuitable for drinking?

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1 MR. MCCONNELL: This is Keith McConnell.
2 Just to respond, I think the concept is that if it's
3 unsuitable for drinking water when the analysis is
4 being made, that would be part of the reason why
5 remediation wouldn't necessarily be required, but it's
6 that argument that a licensee would -- or part of the
7 argument a licensee would use to not require
8 remediation.

9 FACILITATOR RAKOVAN: Okay. Carol, do we
10 have additional comments from the line?

11 OPERATOR: Yes, I do. The next question
12 is going to be from Eric I believe it's Darois from
13 RSCS. Your line is open.

14 MR. DAROIS: Yes, thank you and good
15 afternoon.

16 I guess my comment's a little bit of a
17 follow up from Ron Lovera just a few callers ago.

18 Typically in decommissioning when we meet
19 the 25 millirem criteria, we use a rather
20 comprehensive sampling strategy and many of you
21 probably know this called MARSSIM rather than making
22 a selection on a pass or fail criteria on an
23 individual sample and it just appears to me that, you
24 know, the answer to Ron's question implied that we'd
25 make a decision on remediation on a single sample

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1 result and I'd just ask you to kind of reconsider how
2 that implementation might go.

3 FACILITATOR RAKOVAN: Okay. Thank you for
4 that comment.

5 OPERATOR: Thank you and the next question
6 will be from Glenn Vickers, Exelon. Your line is
7 open.

8 MR. VICKERS: Yes, in the past ten years
9 in the nuclear industry, we've learned just how mobile
10 tritium is in subsurface water flows.

11 Might you somehow tie your concentrations
12 limits based upon subsurface flow direction and speed?
13 You know, as in, where is this plume going to migrate
14 to in ten years? Whereas, a lot of that rough slide
15 nuclides kind of become entrained in the soil.

16 I'm sure several utilities are tracking
17 moving plumes as we speak now.

18 MR. SHEPHERD: Yes, that would be part of
19 the analysis in determining what scheduled remediation
20 should occur.

21 OPERATOR: Thank you and Scott Kirk, Waste
22 Control Specialist. Your line is open.

23 MR. KIRK: Yes, Jim, my question really
24 goes to some of the previous actions that the -- the
25 rulemaking actions that the NRC has already undertaken

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1 and I raise that issue because it might sort of
2 question the need for a rulemaking at this particular
3 time. Because I bet you most of the legacy sites that
4 you guys have identified, these hundred or so that
5 were listed, are sites that were existing, you know,
6 for decades and then there's the timeliness rule that
7 was put into place when you guys promulgated the
8 Decommissioning Rule and there's also a requirement
9 for licensees now to go back further and look at their
10 decommissioning funds that are available to see if
11 they're sufficient to remediate in future sites.

12 And so, I would encourage you guys to look
13 at those actions to see whether or not enough time has
14 passed to see whether or not those regulations that
15 you guys took already to prevent the creation of
16 legacy sites have really materialized such that you
17 don't need a rulemaking.

18 MR. SHEPHERD: Okay. Thank you, Scott.

19 OPERATOR: Thank you. Kathy Yhip, NEI.
20 Your line is open.

21 MS. YHIP: Thank you. Going back to the
22 need to more fully understand the basis for the
23 proposal, in the draft proposed technical basis
24 document, the statement is made that licensee that
25 delay remediation until decommissioning may experience

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1 safety practices that may be relaxed as operating
2 hazards decrease. Key personnel are essentially
3 moving on and management focus changes. We would
4 appreciate it if you could help us by providing some
5 examples of where those changes have occurred.

6 FACILITATOR RAKOVAN: Okay. Thanks,
7 Kathy.

8 I've got a few questions that are coming
9 in electronically through the webinar. So, I'd like
10 to go to those.

11 The first one is from Lee Thomason. If
12 prompt remediation is deemed necessary, would a
13 licensee be allowed to use decommissioning trust funds
14 to cover remediation costs?

15 MR. KLINE: This is Ken Kline. At this
16 point, we haven't contemplated that at this point in
17 time. It's just more likely with reactors. You know,
18 fits the trust fund and this would be more likely for
19 an operational cost which is not -- adheres to a trust
20 fund something prohibitive to be used for operational
21 costs. But, you know, we haven't compensated it that
22 far down the line yet.

23 FACILITATOR RAKOVAN: Carol, do we have
24 any others on the line?

25 OPERATOR: I don't show any on the line at

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1 this time. Once again, that's *1.

2 FACILITATOR RAKOVAN: Okay. I believe we
3 have another question electronically. We'll get to
4 that in a second if people can please hold for a
5 second.

6 I'll just explain why we're pausing at
7 this point. Since we are using a couple of different
8 kinds of participation technologies to do this, we're
9 trying to cover our bases and make sure that the
10 people asking the questions electronically are also
11 participating and can hear, if you will, through the
12 phone line. We're making the assumption that that's
13 not necessarily the case, but considering we seem to
14 be developing this lag, I think what we're going to do
15 moving forward is assume that people who have logged
16 into the webinar are indeed listening to the phone
17 line as well. Because like I said, we seem to be
18 developing this lag as we're trying to answer the
19 electronic questions we're receiving back
20 electronically in addition to addressing them through
21 the phone line.

22 So, in moving forward, I think we're just
23 going to go ahead and do that. Move forward. But,
24 hand with us for a second. We're still trying to pick
25 up on the lag.

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1 Okay. We've got another question from Lee
2 Thomason.

3 If prompt remediation is deemed necessary,
4 would a licensee be allowed to -- wait. We already
5 asked this I believe.

6 Okay. I apologize. We're going with a
7 question from Harvey Leson. How do you anticipate
8 that these rules interface with existing rules?

9 MR. MCCONNELL: Well, this is Keith
10 McConnell.

11 I think in terms of the Decommissioning
12 Rule, we anticipated that it would be complementary to
13 that. In that it takes up where the Decommissioning
14 Planning Rule leaves off.

15 In terms of other rules like Part 40, it
16 would probably be also seen as complementary.

17 FACILITATOR RAKOVAN: Okay. It looks like
18 we have a question from Kenneth Sykora.

19 Can you qualify the intent of prompt? One
20 year, two years, five years? Is there a distinction
21 between the time frame for evaluation versus
22 remediation?

23 MR. SHEPHERD: We've thought about that.
24 We have not defined a time frame yet.

25 Yes, there would be a difference between

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1 the evaluation and the remediation. Evaluation should
2 be done relatively quickly although we haven't denied
3 a time. We're thinking on the order of a few months.

4 The remediation, if the licensee elects
5 not to remediate essentially immediately, when it
6 would be done would be part of their justification for
7 the schedule.

8 FACILITATOR RAKOVAN: Okay. It looks like
9 we've got a new question. How do you expect licensees
10 to address dose contributions from a normal,
11 uncomplicated decommissioning of a site versus a
12 normal decommissioning with the addition of multiple
13 or ongoing leaks from leaks from a facility? In
14 affect, would licensees need to maintain a file
15 summing total expected decommissioning dose?

16 MR. SHEPHERD: At the time of
17 decommissioning, the unrestricted release limit is 25
18 millirem, all sources, all pathways.

19 If there's multiple sources, they have to
20 be accounted for.

21 FACILITATOR RAKOVAN: All right. Carol,
22 assuming there's no other questions immediately right
23 now, I'd like to move on to the second question
24 although we're kind of all over the map in terms of
25 our questions and our comments. Which is okay.

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1 Again, we're having this meeting to get your input and
2 to make sure you understand exactly what the NRC is
3 considering.

4 Keith McConnell.

5 MR. MCCONNELL: Well, I'd just like to
6 interject two comments that might help people
7 understand a little bit better the basis for the
8 technical basis that we're -- have under, I guess,
9 consideration here.

10 The first is the reference to avoiding
11 legacy sites. Certainly, that's the ultimate goal.
12 But, there's also underneath that the thought that
13 it's important to quickly address what could be at
14 some point remediation challenges.

15 So, in essence, what we're suggesting in
16 this technical basis is if you get onto spills or
17 other contamination quickly perhaps you avoid a
18 remediation challenge in the future. So, that was one
19 point.

20 The second point was in terms of the
21 clean-up goals of the MCLs and the extreme criteria.
22 We're not suggesting that those be goals per se. It's
23 only an indicator of when a licensee needs to go
24 through the thought process to determine whether they
25 need clean up. So, they're really not remediation

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1 goals in the true sense of the words. They're only
2 indicators for when a licensee would need to start the
3 thought process and start considering whether prompt
4 remediation is necessary.

5 I hope that's helpful. I'll turn it back
6 over to Lance.

7 FACILITATOR RAKOVAN: Okay. We got a
8 question electronically.

9 The final Decommissioning Planning Rule
10 requires the licensee to conduct radiological surveys
11 including subsurface. (A) Does this survey plan need
12 to be approved and (B) Will the NRC prescribe the
13 detail to which these surveys need to be done? Also,
14 how and where should these results be recorded? Are
15 these results to be sent to the NRC?

16 MR. SHEPHERD: this is Jim Shepherd.

17 We're getting a little of track. We're
18 not really here to talk about the final
19 Decommissioning Planning Rule, but a potential follow-
20 on to it.

21 But, a simple answer to your question is
22 for final surveys, those are prescribed in MARSSIM.
23 During operations, the nuclear power plants who've
24 committed to any IO707 and the results should be
25 recorded in the 50.75(g) files.

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1 FACILITATOR RAKOVAN: Okay. Again, I'd
2 like to remind people that we're specifically looking
3 to get your input in terms of this consideration we
4 have for rulemaking.

5 Carol, do we have any other questions
6 waiting in line at this point?

7 OPERATOR: Yes, I do. Scott Sklenar.
8 Your line is open.

9 MR. SKLENAR: Yes, Scott Sklenar from
10 Exelon.

11 The term prompt remediation, just the term
12 itself implies that that's new releases that we're
13 going to get out there quickly and investigate and
14 remediate.

15 Does this rule contemplate looking at all
16 historic releases? Something that might have happened
17 10/20 years ago or are we starting the clock now and
18 just going forward?

19 MR. SHEPHERD: We haven't actually
20 decided. Certainly, that will need to be addressed in
21 whatever rule language we might come up with.

22 It will be a complicated issue because
23 typically leaks will occur from the same system or in
24 the same general area and it may be difficult to
25 distinguish between what happened last month and what

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1 happened five years ago. But, that would be an issue
2 to be addressed in the rule language.

3 MR. SKLENAR: Thank you.

4 FACILITATOR RAKOVAN: All right. As a --

5 OPERATOR: And --

6 FACILITATOR RAKOVAN: Go ahead, Carol.

7 OPERATOR: Thank you. I have one more
8 question. Eric Darois, RSCS. Your line is open.

9 MR. DAROIS: Thank you. I just wanted to
10 briefly make a comment about your reply to Ken
11 Sykora's question on the issue of prompt.

12 You had indicated that you were
13 contemplating about a two-month evaluation period if
14 I understood correctly.

15 I just think you should consider that
16 under some cases where there's subsurface leaks or
17 spills, it might take much longer than that to do an
18 investigation involving subsurface sampling and the
19 investigation period might be much longer than two
20 months. So, I'm hoping there will be some
21 consideration of that.

22 MR. SHEPHERD: Certainly, I guess my voice
23 is a little hoarse. What I meant was a few months and
24 certainly, those kind of considerations would be taken
25 into account.

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1 FACILITATOR RAKOVAN: All right. I do
2 have a question from the webinar electronically.

3 How would the proposed prompt remediation
4 rule apply to return/reuse of previously discharged
5 radioactive effluence as described in RES 2008-03?

6 MR. SHEPHERD: I believe that addresses a
7 question that came from Wolf Creek and there was a
8 statement in there that once material has been
9 released from the site legally under an effluent
10 discharge program, it is no longer considered part of
11 the radioactive footprint of the site.

12 However, at the time of remediation, it is
13 considered part of the source term for compliance for
14 release limits, but not during operations.

15 And that applies to gaseous and liquid
16 releases not the soil contamination.

17 FACILITATOR RAKOVAN: All right. I'd like
18 to kind of at least move to the second question as
19 again I think we're kind of all over the map at this
20 point. Which is fine.

21 Again, we're looking to make sure that you
22 guys understand exactly what we're considering here
23 and also, we're looking to get your comments and
24 thankfully, we're transcribing today. So, we can kind
25 of, you know, comb through the transcript and figure

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1 out exactly what topic was being discussed at any
2 given time.

3 But, if we can go ahead and put the second
4 I believe set of questions up there.

5 If prompt remediation is required, what
6 criteria should trigger licensee action? And again,
7 we're talking about both concentration and dose.

8 Keith, please.

9 MR. MCCONNELL: Again, when we said this
10 -- Keith McConnell. When we say trigger licensee
11 action, again, it's just triggering a licensee to do
12 -- to start the thought process about whether prompt
13 remediation is necessary.

14 FACILITATOR RAKOVAN: Thank you for that
15 clarification, Keith.

16 Carol, whenever you are ready, go ahead
17 and we'll also take comments or questions if we get
18 them through the webinar.

19 OPERATOR: Thank you and I do have Kathy
20 Yhip, NEI. Your line is open.

21 MS. YHIP: Thank you. I have a couple of
22 questions with regards to the NRC's preferred
23 approach.

24 First, with regards to the selection of
25 the screening values from the License Termination Rule

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1 or the Derived Concentration Guideline Limits, the
2 DCGLs, in more than one case, nuclear power plants
3 have derived concentrations for ground water based on
4 the NRC's screening values in soil and the values are
5 typically higher than would be applied if they were to
6 look at the EPA's maximum contaminate levels. So,
7 there seems to be some disconnect in terms of the
8 endpoints for the DCGLs versus the MCLs.

9 Can you help us understanding please why
10 MCLs would offer an acceptable approach? And I think
11 Scott Kirk also talked about the fact that the NRC had
12 previously rejected the MCLs as part of the License
13 Termination Rule.

14 MR. MCCONNELL: This is Keith McConnell.

15 Again, the MCLs are not being considered
16 as clean-up criteria, clean-up standards or clean-up
17 goals as the DCGLs are. So, I think there's an
18 awareness that the DCGLs could be higher or lower than
19 the MCLs depending on what's considered in the
20 remediation effort.

21 Again, the MCLs are just being used as the
22 threshold when the thought process needs to start
23 about prompt remediation is necessary.

24 And the one thing I would add is I think
25 probably most people know we have a Memorandum of

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1 Understanding with the Environmental Protection Agency
2 on decommissioning issues in which the MCLs are
3 mentioned and identified and when the DCGLs exceed
4 those MCLs, we're required under the MOU to interact
5 with EPA and so, that's where we evolved in terms of
6 using the MCLs as this threshold for decision making.

7 MS. YHIP: So, am I still on the line?

8 FACILITATOR RAKOVAN: Yes, you are.

9 Please, go ahead, Kathy.

10 MS. YHIP: Sorry. There's also some
11 questions with regards to the dose methodology that
12 provides the basis for both.

13 For example, the DCGLs, I believe, are
14 based on the more recent ICRP 60. Whereas, the MCLs
15 were based on ICRP 2 and at least in the case of
16 tritium, the current concentration of 20,000
17 picocuries a liter for tritium in drinking water would
18 yield a resultant dose of roughly one millirem versus
19 four.

20 So, we'd certainly be interested in the
21 NRC's consideration of number one, the similar dose
22 methodologies as the basis for essentially the trigger
23 thresholds that are being proposed and number two,
24 going back to earlier questions with regards to the
25 end use of that ground water.

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1 FACILITATOR RAKOVAN: Okay. Thank you for
2 that.

3 I think in the same vein as the comment
4 Kathy made, we do have an electronic comment from
5 Keith Sykora.

6 I'm sure I'm slaughtering your name.
7 Apologize about that.

8 MR. SYKORA: It's Sykora.

9 FACILITATOR RAKOVAN: Sykora.

10 MR. SYKORA: Kenneth.

11 FACILITATOR RAKOVAN: Kenneth. Boy, I
12 really am slaughtering your name.

13 MARSSIM DCGLs and 10 CFR 20.1402 are based
14 on the premise of total effective dose equivalent as
15 defined through ICRP 26 and ICRP 30.

16 The EPA MCLs are based on outdated ICRP 2
17 dose factors and critical organ dose of four millirem
18 per year which is inconsistent with the study
19 concepts.

20 Does this inconsistency pose problems
21 related to the 25 millirem per year criteria?

22 MR. SHEPHERD: The 25 millirem per year
23 criterion is a decommissioning criteria for
24 termination of the license and a release for
25 unrestricted use.

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1 What we're talking about now is people
2 thinking about what they have to do to clean up before
3 they get the license termination in order that they'll
4 meet that. We're not saying that the methodology
5 should be used either. Which ICRP should be used.
6 Only that if you have those concentrations on the
7 assumption that the rule is based on concentration
8 that that's the point at which you would start doing
9 the analysis.

10 FACILITATOR RAKOVAN: Okay. I've got
11 another couple of questions that have come in
12 electronically.

13 Is the NRC considering a site specific
14 standard or background corrected standard for both
15 soils and ground water?

16 MR. MCCONNELL: This is Keith McConnell.
17 I think that's -- as I understand the
18 question, I think that's beyond the scope of what
19 we're considering here today.

20 FACILITATOR RAKOVAN: Okay. There's
21 follow on. EPA drinking water MCLs are typically used
22 for drinking water aquifers. Will this MCL apply to
23 non-drinking water aquifers, too?

24 MR. MCCONNELL: This is Keith McConnell.
25 I think that gets back to an earlier

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1 question. This is the type of analysis we would want
2 to see under this concept from the licensee. That if
3 for some reason exceeding an MCL isn't an issue, then
4 that may be justification for not pursuing prompt
5 remediation.

6 FACILITATOR RAKOVAN: Thanks, Keith.

7 Carol, do we have anybody else who is
8 waiting on the line?

9 OPERATOR: No questions on the line right
10 now.

11 FACILITATOR RAKOVAN: Okay. We can
12 certainly come back at some point and talk about what
13 should trigger the license action.

14 So, let's go ahead and move on to the
15 third question.

16 Should NRC allow licensees to delay a
17 remediation? Under what conditions and if so, for how
18 long?

19 OPERATOR: And I do have one question on
20 the phone lines and that is from Kathy Yhip, NEI.
21 Your line is open.

22 MS. YHIP: Thank you. So, with regards to
23 the timing, I think I raised the question earlier. It
24 would be helpful if we could understand, number one,
25 whether or not the endpoint for comparison was at the

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1 time of decommissioning. If, for example, the
2 material is not getting off-site at this point in
3 time, does that add additional factors?

4 I believe, Jim, in your presentation, you
5 made some mention of a consideration on whether or not
6 you could allow for normal radioactive decay as part
7 of that consideration.

8 So, it would be helpful to get a little
9 more clarity about the timing for that expectation in
10 terms of clean up assuming remediation continues to be
11 used synonymous with clean up.

12 MR. SHEPHERD: Okay. I think that is
13 something that we should factor into the rule. I
14 think generally if the licensee detects some amount of
15 contamination on site, then they should do an analysis
16 to say what is it going to be? How long is it going
17 to be here? Where is going to go?

18 I'm not sure how we put all those words in
19 a rule, but it's certainly a consideration.

20 MR. GARRY: This is Steve Garry, too,
21 Kathy.

22 I think today's webinar, we're trying to
23 get input from stakeholders. We're not so much trying
24 to answer questions. So, we really want to obtain
25 your opinion on the answers to some of these questions

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1 rather than sort of to quiz us on what we're thinking.

2 FACILITATOR RAKOVAN: So, Kathy --

3 MS. YHIP: Steve --

4 FACILITATOR RAKOVAN: -- do you want to
5 turn your question around to make a suggestion or
6 comment?

7 MS. YHIP: Well, at this point, I'm
8 trying. We have not as an industry formulated our
9 input to the NRC's posed question in a manner that we
10 can present. We're, as I mentioned, still trying to
11 get a little better understanding.

12 We'll be providing comments before the due
13 date which I believe is September 16th, but in order
14 to fully form those comments, we were hoping to get a
15 little better understanding.

16 Sorry, Steve.

17 MR. GARRY: Okay. We just wanted to make
18 sure stakeholders had a chance to provide us with
19 their perspectives.

20 MS. YHIP: Understood. Thank you.

21 FACILITATOR RAKOVAN: We do have a
22 question coming in from the webinar. It's from Robert
23 Holly.

24 Will a comprehensive risk assessment for
25 all contaminants of concern be an approach in lieu of

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1 MCLs?

2 MR. SHEPHERD: Yes.

3 FACILITATOR RAKOVAN: I love the easy
4 ones.

5 Carol, do we have anybody else waiting on
6 the line to give a comment?

7 OPERATOR: No comments on the phone lines.

8 FACILITATOR RAKOVAN: Okay. I'll take
9 that as a cue to go ahead and move on to the next
10 question.

11 Question four. I'm sorry. One popped up.
12 Thank you. This is from Joseph Rizzi.

13 It seems the NRC wants to make what should
14 be a site specific issue into a specific one size fits
15 all rule. How does this best suit the industry?

16 MR. MCCONNELL: Well, this is Keith
17 McConnell.

18 We're thinking about the question.

19 MR. SHEPHERD: I think as Steve said a
20 minute ago, what we're really looking for is the
21 industry opinion on what we should do not on our
22 opinion.

23 So, if you believe it should or shouldn't
24 be something, tell us that please.

25 FACILITATOR RAKOVAN: We've got from the

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1 webinar from A. Joseph Nardi related to question two.

2 I do not believe that the use of NRC
3 screening values as clean up criteria is reasonable
4 particularly for uranium and thorium sites.

5 Would the NRC approve site specific DCGLs
6 to allow more reasonable values?

7 Screening values and MCLs may be valid as
8 an action level, but for most sites, it will require
9 a licensee to take the next step of detailed
10 evaluations.

11 That sounds like a good comment.

12 We've got a question from Harvey Leson.

13 Any remediation should consider phased
14 approaches. This is different from the all or nothing
15 clean up criteria. The NRC should allow interim
16 actions and consider how this could be implemented
17 over the duration of the license. Is this in
18 consideration currently?

19 Considering your just provided a comment,
20 I'd say that it's in consideration. Thank you for the
21 comment.

22 Carol, do we have anyone in the queue at
23 this point?

24 OPERATOR: No one in the queue right now.

25 FACILITATOR RAKOVAN: Okay. Let's go

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1 ahead and move on to question four then.

2 Can safety impact on operations or cost
3 justify delaying remediation? If so, why?

4 Anybody lining up, Carol?

5 OPERATOR: I do have one question and I
6 believe it is going to be from Scott Sklenar in
7 Exelon. Your line is open.

8 MR. SKLENAR: All right. Thank you.
9 There's already all kinds of clean up programs and
10 guidance out there. Superfund Programs. RCRA
11 Corrective Actions. All kinds of state programs for
12 spills and real estate transfers.

13 Are you guys at the NRC looking at those
14 things as you look at crafting a program or are you
15 sort of starting from scratch?

16 MR. MCCONNELL: This is Keith McConnell.
17 Certainly, we're aware of those and will
18 use those. At least would consider those in terms of
19 what we intend to do.

20 MR. SKLENAR: It sounds like your comment
21 would be that we should look at those in our
22 consideration.

23 MR. MCCONNELL: Yes, I'd recommend it. I
24 mean this stuff isn't new. People been cleaning up
25 sites for 20 or 30 years. Maybe not as much in

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1 nuclear power plants, but chemical refineries,
2 manufacturing plants. It's a pretty mature industry.

3 MR. SKLENAR: Okay. Thank you. That's a
4 good comment.

5 OPERATOR: No other comments at this time.

6 FACILITATOR RAKOVAN: All right. That
7 must have been an easy one.

8 All right. Question five, if licensees
9 may delay remediation, what should analyses address:
10 operational safety, dose assessment, cost benefit or
11 other?

12 I think this seems to be kind of a follow
13 on from the previous question.

14 Again, we're looking for questions both
15 from the phone lines and from the webinar
16 electronically.

17 OPERATOR: I do have a couple on the phone
18 lines. And Kathy Yhip, NEI. Your line is open.

19 MS. YHIP: Thank you. With regards to
20 other considerations, obviously an actual receptor or
21 dose pathway or items that should be considered when
22 looking at potential remediation actions, but again,
23 that would depend somewhat on the timing for that
24 point of comparison.

25 FACILITATOR RAKOVAN: Thank you, Kathy.

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1 OPERATOR: And I do have another one.
2 Glenn Vickers, Exelon. Your line is open.

3 MR. VICKERS: Yes, there was some recent
4 operating experience where a condensate tank which is
5 basically the holder of clean water sources for the
6 plant had holes. They were patched. Yet, we know
7 there's contamination that remains in the soil under
8 the tank.

9 And so, to take this tank out of service
10 for extended periods of time isn't practical relative
11 to the perhaps lack of migration of the contaminants
12 in the soil under the tank.

13 So, I do believe there are times where
14 operational considerations may have significant
15 bearing on that and that would need to be incorporated
16 into the rule if we did that.

17 FACILITATOR RAKOVAN: Okay. We've got a
18 comment electronic from A. Joseph Nardi.

19 A very simple statement. Impact on
20 operations should be added to the list.

21 Okay. Thank you for that.

22 Carol, do we have anyone in the queue?

23 OPERATOR: No questions in the queue.

24 FACILITATOR RAKOVAN: We've got a partial
25 question. So, I'm going to ask Mr. Holly if you could

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1 please re-send your question. I don't think we have
2 your complete question or comments. If you could
3 please re-send.

4 OPERATOR: And I do have a question on the
5 phone lines. Bob Irwin. Your line is open.

6 DR. IRWIN: Yes. Good afternoon. Thanks
7 for the opportunity to address this.

8 I wanted to ask a somewhat general
9 question. Given the ground water releases that have
10 occurred over the past 18 months and the particular
11 issues that have arisen with ground water, are there
12 any ramifications of some of the arguments that states
13 have made that ground water has another authority
14 besides the Nuclear Regulatory Commission?

15 For example, there are some who would
16 argue that the ground water is a resource of the state
17 as well as the NRC and as such, that there may be,
18 therefore, some need to take a look at this whole
19 issue relative to state's rights when it comes to
20 ground water.

21 MR. MCCONNELL: This is Keith McConnell.

22 There was no consideration of that in what
23 we've developed and what we're dealing with here is
24 only those activities under NRC authority. So, that
25 would be the limited scope we would have.

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1 But, thank you for the comment.

2 FACILITATOR RAKOVAN: Okay. We've got a
3 comment electronically from Joseph Rizzi.

4 Also, likelihood of recontamination should
5 be considered. Therefore, a complete remediation
6 would not be constructive.

7 Thanks for the comments.

8 Carol, anyone in the queue right now?

9 OPERATOR: No one in the queue.

10 FACILITATOR RAKOVAN: Okay. Got one that
11 has popped from Ronald Lovera.

12 If you allowed delaying remediation, do
13 you anticipate any changes to the 50.75 Section C(2)
14 formula to reflect the impact of leaks on projected
15 reactor decommissioning funding requirements?

16 Should projected dose approaching or
17 exceeding the unrestricted site release criteria at
18 the expected time of decommissioning be used as
19 criteria for making such adjustments?

20 MR. SHEPHERD: This is Jim Shepherd.

21 NRR controls the funding and
22 decommissioning funding for reactor operations. We do
23 not contemplate any changes to Part 50 under this
24 rule.

25 FACILITATOR RAKOVAN: Okay. We've got

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1 another question or comment electronically and just to
2 let people know, on the agenda, we did have a break
3 scoped out. We kind of discussed it here in the room
4 at the NRC and we decided to kind of plow through
5 that. Give you guys an opportunity to hopefully, you
6 know, get through these before we needed to take a
7 break. So, we hope you're okay with that. If not,
8 hopefully, you can step out and take care of whatever
9 business you need to take care of without us taking
10 the formal break.

11 So, I'll get to Lee Thomason's comment.

12 Cost benefit should be considered though
13 unlikely significant remediation could impact the
14 licensee's financial risk such that a legacy site
15 might develop later if a licensee goes bankrupt.

16 Thank you for the comment, Lee.

17 We've got a follow-up from Harvey Leson.

18 Follow-up question regarding state rules
19 and implementations. The NRC should consider
20 agreements worked out with state agencies that
21 regulate ground water quality as an alternative to
22 decommissioning requirements. Consideration should be
23 given how this will be implemented in any proposed
24 rule.

25 Thanks for the comment, Harvey.

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1 Carol, do we have anyone in the queue?

2 OPERATOR: No one in the queue at this
3 time.

4 FACILITATOR RAKOVAN: Okay. Let's go
5 ahead and move on to the next question. We're still
6 talking about delaying.

7 If licensees may delay remediation, how
8 important is the cost of remediation "now" versus the
9 cost of remediation at license termination?

10 Carol, anyone queuing up?

11 OPERATOR: No one queuing up at this time.

12 FACILITATOR RAKOVAN: I think we've kind
13 of covered some of these issues. So, it's possible
14 that people have already made their comments on them
15 and again, just because we're moving forward doesn't
16 mean that you can't make comments or ask questions on
17 these as move forward.

18 Let's go ahead and move on to number
19 seven. If licensees may delay remediation, what
20 standards and criteria should the licensee use? What
21 constitutes sufficient justification?

22 Carol, do you got somebody or do we have
23 crickets chirping out there?

24 OPERATOR: I have nobody right now.

25 FACILITATOR RAKOVAN: Ouch. Okay.

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1 OPERATOR: Once again, it's *1 on the
2 phone lines.

3 FACILITATOR RAKOVAN: Okay. Let's go
4 ahead and move on to eight then.

5 Are there any other alternatives to
6 rulemaking to address prompt remediation that the NRC
7 should consider?

8 More crickets?

9 OPERATOR: I still show no one on the
10 phone lines.

11 FACILITATOR RAKOVAN: Okay.

12 MR. SHEPHERD: Well, we heard the comment
13 earlier that David Lochbaum brought up saying that we
14 shouldn't even do rulemaking. We should enforce
15 existing requirements. So, that's really the answer
16 to this question or input to this question.

17 FACILITATOR RAKOVAN: All right. Let's
18 push on to number nine.

19 Are there any other issues in the
20 technical basis for rulemaking to address prompt
21 remediation that the NRC should consider?

22 Looks like we have a question or comment
23 electronically from the webinar.

24 This is from Joseph Rizzi.

25 It would depend on the financial hardship

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1 the remediation would impact the licensee. The
2 licensee may be in a better situation to do
3 remediation at a future date.

4 Thank you for the comment.

5 Any other comments either electronically
6 or through the phone line?

7 OPERATOR: Show none on the phone lines.
8 One moment. I apologize. Kathy Yhip, NEI. Your line
9 is open.

10 FACILITATOR RAKOVAN: Kathy, we've been
11 missing you.

12 MS. YHIP: I've been here listening. I
13 think this goes back to one of my earlier questions
14 and comments. From a risk-based perspective, the need
15 for rulemaking is something that we really need to
16 better understand. When we look at all of the NRC's
17 evaluations of unintended leaks or spills that have
18 occurred and we look at the NRC's reports from their
19 ground-water task forces and senior management review
20 groups' recommendations, the overall conclusion seems
21 to consistently be that the dose consequences
22 projected from any of those leaks or spills has not
23 been significant and I did not see any description or
24 discussion in the draft proposed technical basis. So,
25 it would be helpful for us to be able to get some

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1 additional details in that regard.

2 MR. GARRY: Okay. This is Steve Garry.

3 I think those statements have primarily
4 been the dose consequences off-site. When we're
5 talking decommissioning, we're talking about dose
6 consequences that would include on-site after the
7 license is terminated.

8 So, the two are not directly connected.

9 MS. YHIP: At the time of decommissioning
10 though, Steve, wouldn't the site then become
11 essentially off-site since the license would be
12 terminated?

13 MR. GARRY: Right. The statement you
14 referred to about the senior management review group
15 have referred to the dose consequences to the public
16 which is primarily an off-site consideration during
17 the operational period.

18 MS. YHIP: Okay.

19 FACILITATOR RAKOVAN: Thank you and I do
20 also have a question from Mark Ledoux from Energy
21 Solutions. Your line is open.

22 MR. LEDOUX: Thank you. Have you
23 considered since most or a lot of licensees that this
24 is going to affect eventually will be agreement states
25 what compatibility category this may fall under?

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1 MR. MCCONNELL: This is Keith McConnell.

2 I don't know that we've gone that far.

3 Certainly, we've provided this information to our
4 agreement states and we'd have to involve them in any
5 rulemaking that would go forward. So, that's yet to
6 be determined.

7 MR. LEDOUX: Thank you.

8 FACILITATOR RAKOVAN: Do you have a
9 suggestion as to which compatibility category you
10 think it should be?

11 MR. LEDOUX: No, I don't. I was just
12 curious if you had reached that yet. Thank you.

13 FACILITATOR RAKOVAN: All right. I was
14 trying to get a comment there.

15 All right. We've got an electronic
16 comment or question from A. Joseph Nardi.

17 The licensee must have the freedom to use
18 RESRAD to calculate site specific DCGLs, but this
19 still leaves the problem that there is no current
20 mechanism to obtain approval of these outside the
21 license termination, decommissioning process.

22 MR. MCCONNELL: This is Keith McConnell.

23 Presuming that this rulemaking would go
24 forward, I think the concept would be that if a DCGL
25 was the basis for either deciding to do prompt

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1 remediation or not, then there would be a separate
2 approval mechanism built in, but that's just
3 conceptual at this point.

4 I think also that if the rulemaking were
5 to go through, we would probably follow this up with
6 a regulatory guide on how to implement it and that may
7 include some guidance on how to do this site specific
8 calculations.

9 OPERATOR: And I do have a question on the
10 phone line. Eric Darois, RSCS. Your line is open.

11 MR. DAROIS: Yes, this is just a little
12 bit of a follow-up to that and I'm sure it's much
13 details for any proposed rulemaking, but it may be in
14 the reg guide to consider how you're going to handle
15 or treat soil contamination that might be below
16 buildings and would there be a distinction between
17 that and outside areas and what might be in the water
18 table and might not be in the water table.

19 So, I think there's a lot of basis that
20 should be covered especially perhaps in the reg guide.

21 FACILITATOR RAKOVAN: Okay. Thank you for
22 that comment.

23 Any other comments at this point either
24 electronically or from the phone lines?

25 OPERATOR: I show no further comments.

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1 FACILITATOR RAKOVAN: Okay. Any other
2 comments or questions on any of those questions that
3 we through out kind of as the framing questions for
4 this case?

5 We'll pause for a moment on two. People
6 want to kind of collect their thoughts.

7 Carol, any life out there?

8 OPERATOR: None at this time.

9 FACILITATOR RAKOVAN: Okay. Why don't we
10 go ahead and move on to the next steps.

11 All right. Essentially, what we're going
12 to do, staff is going to, you know, take a look at all
13 the comments that we received. Kind of go through the
14 transcript from this meeting and the comments that
15 were received through the other mechanisms that we'll
16 be talking about and consider the comments.

17 They're going to refine the proposed draft
18 technical basis using the input as appropriate.

19 Next slide please. They'll be a paper
20 that's put together transmitting the proposed draft
21 technical basis and, of course, a recommended course
22 of action as well that will go to the Commission.

23 Now, we did want to open it up for some
24 general questions before we went ahead and kind of
25 convened today just to see if there's any other issues

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1 or comments that people have related to prompt
2 remediation in general.

3 OPERATOR: I do have one on the phone
4 lines. Glenn Vickers, Exelon. Your line is open.

5 MR. VICKERS: Yes, just one more comment
6 as far as the basis.

7 A previous question has come up about the
8 risk in effluence and recapture and it was noted that
9 applied to gaseous and liquid effluence. However,
10 what occurs is, you know, the rain will recapture
11 effluence from the gas and it becomes moisture in the
12 soil. So, it does become a soil problem.

13 So, I would take a close look at that
14 risk. Where if you have studies that demonstrate the
15 activity in the soil is from recapture, then it may or
16 may not apply.

17 That's all.

18 FACILITATOR RAKOVAN: Thank you for that
19 comment. Looks like we -- nope. Sorry. Go ahead,
20 Carol.

21 OPERATOR: I am sorry. I do have one
22 more. Anine Grumbles, Washington Department of
23 Health. Your line is open.

24 MS. GRUMBLES: Thank you. Thanks very
25 much for being able to participate. I hope that you

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1 will be sending us copies of the transcript.

2 I'd also like to ask that you keep in mind
3 that some of the licensees that may become affected by
4 this are not necessarily large facilities. So, they
5 may not have the resources or insurance or many things
6 of a large facility and so, having a one size fits
7 all, something that is applicable to a nuclear power
8 plant or a fuel fabrication facility is really not
9 appropriate for a small laboratory even though they
10 may be using -- or say an academic facility that may
11 be using or have large quantities on their license,
12 but may not be actually using those quantities.

13 So, I'd appreciate it if you'd keep that
14 in mind.

15 FACILITATOR RAKOVAN: Okay. Thank you.
16 We've got a few things popping up through the webinar
17 at this point. So, I'd like to take those.

18 The first one is from Ronald Lovera.

19 If you plan to allow for cost
20 justification as a basis for delaying remediation, how
21 do you anticipate the cost of benefit analysis will be
22 made available for public discussion and comment?

23 MR. MCCONNELL: This is Keith McConnell.

24 Again, I don't know that we've gone that
25 far in the thought process, but given that just

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1 everything we do outside of personnel and security is
2 open to the public, it certainly would be available
3 for public discussion.

4 But, then in terms of whether it's a
5 license amendment or something like that, I don't know
6 that we've gone that far down the line.

7 FACILITATOR RAKOVAN: All right. We had
8 a brief comment from Chris Graham.

9 Recapture also applies to activity in
10 cooling lakes.

11 We also have another question or comments
12 from Kenneth -- I'm sorry. How --

13 MR. SYKORA: Sykora.

14 FACILITATOR RAKOVAN: Sykora.

15 MR. SYKORA: Sykora.

16 FACILITATOR RAKOVAN: Sykora. Okay. I
17 apologize.

18 Screening for evaluation appears to hinge
19 on DCGL screening levels or EPA MCLs. The DCGLs are
20 based on a dose consequence of 25 millirem for years
21 TEDE dose. Whereas, EPA MCLs are based on 4 millirem
22 per year critical organ dose.

23 I would recommend delving -- deriving, I'm
24 sorry, a new set of concentration limits for water
25 concentrations based on a similar dose consequence of

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1 25 millirem per year TEDE dose using more modern ICRP
2 30 or ICRP 72 dose factors.

3 Okay. Thank you for that comment,
4 Kenneth.

5 MR. GARRY: Ken, this is Steve Garry.

6 I understand your comment there that the
7 threshold should be tied to the TEDE dose limits of 25
8 millirem and the 20.1400 series criteria rather than
9 the EPA MCLs.

10 So, that's a good comment. We'll take a
11 look at how to address that.

12 FACILITATOR RAKOVAN: Carol, do we have
13 anyone in the queue?

14 OPERATOR: No one in the queue at this
15 time.

16 FACILITATOR RAKOVAN: Any input that any
17 of the participants in today's meeting wants to toss
18 out before we convene about kind of the whole virtual
19 webinar meeting kind of thing that we've done here?
20 Was it useful? Could you follow the slides? Was it
21 easy to make comments?

22 All right. While you're thinking about
23 that, I had something else pop up on the webinar.
24 This is from Steve Hall.

25 A general comment on behalf of DOE's

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1 legacy management program. DOE would like to thank
2 NRC for their continued attention and effort to
3 minimize the number of currently operating sites which
4 could become legacy sites requiring long-term
5 management at the expense of the Federal Government.

6 All right. A little, little Federal
7 patting each other on the back. That's okay.

8 One way that you can provide, of course,
9 comments on the webinar if you'd like to is to
10 download that public meeting feedback form which is
11 posted on the page for this meeting. Again, that is
12 free. If you just drop that in the mail, that'll get
13 to us and let us know what you thought.

14 I've a comment or question from Lee
15 Thomason.

16 If licensees' cost benefit is made public,
17 there may be financial information that is company
18 confidential or sensitive.

19 Thank you, Mr. Thomason. We'll take that
20 into account.

21 OPERATOR: I do have a couple of the phone
22 lines.

23 FACILITATOR RAKOVAN: Please.

24 OPERATOR: Thank you. Mark Ledoux, Energy
25 Solutions. Your line is open.

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1 MR. LEDOUX: Thank you. I would just like
2 to say that the questions you have there with the
3 slides, you can see that fine. Comments are really
4 easy to make and I would encourage continued use of
5 the webinar. I think it's going to be a nice use, an
6 efficient use of time and money for everybody involved
7 on the beginning stages of this and then it'll make it
8 better later on if it becomes a proposed rule. So,
9 thank you.

10 OPERATOR: And our next question will be
11 from William Irwin from Vermont Department of Health.
12 Your line is open.

13 DR. IRWIN: Yes. Thank you.

14 The venue and discussion today is
15 extremely important. I think that a number of parties
16 consider the information available from the NRC and
17 the ability to have a dialogue with the NRC has been
18 wanting for some time and I think the more that you
19 can open this up and the more you can actually inform
20 other stakeholders that these kinds of communications
21 are taking place so that you can hear from other
22 parties not just those who are accustomed to getting a
23 lot of your information notices and a lot of your
24 other official communications, the more you're going
25 to be perceived as open, transparent and very open to

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1 listening to and trying to respond to although you
2 can't always the concerns of all the stakeholders.

3 FACILITATOR RAKOVAN: I had a comment from
4 the webinar about the webinar.

5 Webinar concept seems to work pretty good.
6 For those that just want to listen in, it may be
7 useful to provide an audio web feed as well.

8 We'll take that into account. That's from
9 Val Malfew.

10 Carol, anyone else in the queue at this
11 point before we kind of close things down?

12 OPERATOR: Yes, I do have a couple more.

13 FACILITATOR RAKOVAN: Excellent.

14 OPERATOR: Josey Ballenger, GAO. Your
15 line is open.

16 MS. BALLENGER: Hi, there. I just had a
17 comment about the webinar functionality itself.

18 Everything was great except that I had
19 submitted a few comments through the chatroom about
20 accessing the slides and I just could not get them
21 through any web address and I think it would have been
22 nice to have had the slides in advance or concurrent
23 with the webinar so that we participants could have
24 printed them out and taken notes with them. Thank
25 you.

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1 FACILITATOR RAKOVAN: Carol, you said you
2 had more than one in the queue?

3 OPERATOR: I have one more. Kathy Yhip,
4 NEI. Your line is open.

5 MS. YHIP: Thanks. I just wanted to on
6 behalf of NEI thank the NRC for setting this up and
7 allowing us to participate in the process.

8 Certainly appreciate and share the goal to
9 insure that we protect public health and safety and
10 looking forward to providing additional comments on
11 the proposed rulemaking.

12 FACILITATOR RAKOVAN: Okay.

13 OPERATOR: And I show you further
14 comments.

15 FACILITATOR RAKOVAN: Okay. Looks like we
16 don't have anything else going on on the webinar as
17 well.

18 Why don't we go ahead and kind of move
19 forward to closing activities if you will.

20 Just to let you know, the transcript will
21 be posted with a meeting summary and attendee list
22 within 30 working days of today. It'll be posted to
23 the same site where all the materials for this meeting
24 were posted. Both the NRC public Website and the
25 Decommission Public Involvement Website as well.

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1 We'll re-post the introductory slide that
2 was on at the conclusion of the meeting for about five
3 minutes and that does have the web link to the
4 decommissioning site so you don't have to go looking
5 for it.

6 MR. MCCONNELL: Lance, in answer to the
7 GAO question, I think that should have the view graphs
8 on. Is that correct?

9 FACILITATOR RAKOVAN: The view graphs are
10 on the website that we will be putting the link up to.
11 Correct.

12 For those of you who felt shy or didn't
13 otherwise feel like commenting or have further
14 thoughts on these matters as we move forward, the best
15 way to get your comments in is by going to
16 regulations.gov. The docket ID is NRC-2001-0162.

17 You can also submit your comments by mail
18 or fax. The mail address is to Cindy Bladey here at
19 the NRC and that's Washington, D.C. 20555-001.

20 What is the timing on that? I don't see
21 that on this slide in terms of when they have.
22 Sixteenth of September. Okay. I just wanted to make
23 sure we got that out there so people are aware.

24 With that, I will go ahead and turn things
25 over the Chad Glenn who is going to close out the

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1 meeting for us or Keith. I'm sorry.

2 MR. MCCONNELL: This is Keith McConnell.
3 We do appreciate you participating in the webinar
4 today and providing us with your comments and
5 questions.

6 It is in the developmental stage of this
7 technical basis. So, getting input from you all is
8 important to our deliberations and we would look
9 forward as we move forward with the process to getting
10 additional comments in the proposed rule stage and
11 perhaps even before that.

12 Thanks again.

13 FACILITATOR RAKOVAN: With that, I think
14 we're closed. Thank you so much for your
15 participation today.

16 OPERATOR: Thank you. This concludes the
17 conference. You may disconnect at this time.

18 (Whereupon, at 2:42 p.m., the conference
19 was adjourned.)
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