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NUCLEAR REGULATORY COMMISSION

Streamlining the Review Process for Title:

License Renewal Applications for

Research and Test Reactors

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1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
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4	STREAMLINING THE REVIEW PROCESS FOR LICENSE RENEWAL
5	APPLICATIONS FOR RESEARCH AND TEST REACTORS
6	+ + + +
7	WORKSHOP
8	+ + + +
9	THURSDAY,
10	JUNE 4, 2009
11	+ + + +
12	ROCKVILLE, MD
13	+ + + +
14	The Workshop convened in Salon I of the
15	Rose Hill Ballroom, Legacy Hotel, 1775 Rockville Pike,
16	Rockville, Maryland, at 1:00 p.m., Al Adams,
17	Facilitator, presiding.
18	PRESENT:
19	AL ADAMS, Facilitator
20	DUANE HARDESTY, NRC
21	KATHRYN BROCK, NRC
22	LIHN TRAN, NRC
23	BILL WATKINS, Washington Safety Management Solutions
24	MIKE NORRIS, NRC
25	PRESENT (Continued):
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1		JERUD HANSON, Nuclear Energy Institute
2		ED ABBOTT, ABZ
3		ROB SWEENEY, Consultant
4		MARK BEAUMONT, URS Corporation
5		SUSAN UTTAL, NRC
6		RALPH BUTLER, University of Missouri
7		STEPHEN FRANTZ, Reed College
8		TOM BLOUNT, NRC
9		STEVE REESE, Oregon State University
10	SEAN	O'KELLY, University of Texas (present via
11		telephone)
12	STEVE	MILLER, Armed Forces Radiobiology Research
13		Institute
14		TOM MYERS, NIST
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PROCEEDINGS

This is my first Webinar.

ADAMS:

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(1:01 p.m.)

Thanks for

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discussing where we're at on these streamline review

Good afternoon.

Today we're having what the NRC calls a

this is a Category III public meeting, which means not

process for research reactor license renewals,

only are industry representatives, licensees, vendor

Category III public meeting, and we're going to be

organizations, non-governmental organizations, private

citizens, everybody is invited to attend the meeting

and participate. This is a meeting where I hope the

have a dialogue with the folks that are here in the

room and have dialed in versus just you listening to

me.

Our meeting today is being transcribed, and the minutes of the meeting will become part of the public record. So you'll be able to see in print what has gone on.

you're in the room here, could you please make sure you've signed the attendance sheet in the back? The Webinar participants, what we're hoping is once we get that back up and running, the fact that

you're logging in will identify you. If we're still fighting with that later on near the end of the discussion, we'll ask to have the folks on the phone identify themselves and we'll log you down manually.

Because this is being transcribed, especially to folks on the phone, if you ask questions or make comments, please identify yourself and your organization each and every time because we're not that good at identifying voices. Also in the room, if you can identify yourself, that will help, too.

This public meeting is part of our outreach activities on license renewal to get public comment. We will also be having a formal Federal Register notice go out very shortly that will open up a formal comment period. So not only will we look at the comments that are made from today's meeting, but we also invite formal comments to be submitted as a result of the notice that will appear in the Federal Register.

Have I missed anything, Duane?

MR. HARDESTY: If someone references material that's not part of the slides, please everyone what it is so they can understand, especially for those that are on the phone.

MR. ADAMS: Okay. Did everybody hear

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1	that?
2	MR. HARDESTY: They should be able to view
3	the slides now.
4	MR. ADAMS: Okay. The people on the
5	Webinar, can you see the slides?
6	MR. WATKINS: This is Bill Watkins.
7	I can see them.
8	MR. ADAMS: Okay. Are the slides
9	changing?
10	MR. WATKINS: Yes, they are changing.
11	MR. ADAMS: Okay, all right. Then we're
12	in sync here.
13	We'll start with the introductions.
14	Public meeting information we've already gone through.
15	Introductions and welcome, we can just go around the
16	table quickly and on the phone so that we know who's
17	here.
18	My name is Al Adams. I'm a project
19	manager in the Research and Test Reactor Branch.
20	MR. HARDESTY: I am Duane Hardesty, also a
21	project manager in the Research and Test Reactor
22	Branch.
23	MS. BROCK: I'm Kathryn Brock. I'm a
24	Branch Chief with Research and Test Reactors at NRC.
25	MR. JENKINS: Jere Jenkins, Purdue
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1	University and TRTR.
2	MR. REESE. Steve Reese, Oregon State
3	University and TRTR.
4	MR. NORRIS: Mike Norris. I'm in the
5	Office of Nuclear Security, Incidence Response,
6	Emergency Preparedness.
7	MR. HANSON: Jerud Hanson, senior project
8	manager in Nuclear Energy Institute.
9	MR. ABBOTT: Ed Abbott, ABZ.
10	MR. SWEENEY: Rob Sweeney, consultant.
11	MR. BEAUMONT: Mark Beaumont, URS
12	Corporation.
13	MS. UTTAL: Susan Uttal, Office of the
14	General Counsel, NRC.
15	MR. BUTLER: Ralph Butler, University of
16	Missouri, Chair, TRTR.
17	MR. BLOUNT: Tom Blount, Deputy Director,
18	Division of Policy and Rulemaking, NRC.
19	MR. WEISS: Sy Weiss, TRTR.
20	MR. ADAMS: Jeremy.
21	MR. SILVER: Jeremy Silver with
22	MS. REED: Beth Reed, project manager,
23	NRC.
24	MR. BEAUMONT: Mark Beaumont, NRC.
25	MR. WURTZ: Geoff Wurtz, project manager,
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1	NRC.
2	MS. TRAN: Lihn Tran, project manager,
3	NRC.
4	MS. MONTOGMERY: Cindy Montgomery, project
5	manager, NRC.
6	MR. KENNEDY: (Unintelligible) Kennedy,
7	project manager, NRC.
8	MR. HARRIS: Steve Harris, project
9	manager, NRC.
10	MR. ADAMS: Also if they want to say
11	something for the record, they need to come up to the
12	mic.
13	MR. HARDESTY: And also, I would ask
14	everyone, pretty much Jere on down and Hal on down,
15	please speak up because the audience can only hear
16	through that one speaker phone.
17	MR. HANSON: There are additional
18	microphones on the table.
19	MR. BLOUNT: But they don't necessarily go
20	into the phone.
21	MR. HANSON: Oh.
22	MS. BROCK: And who do we have on the
23	phone, please?
24	MR. FRANTZ: Stephen Frantz from Reed
25	College.

Bill, are you still there, 1 MS. BROCK: 2 Watkins? 3 (No response.) 4 MR. ADAMS: Les, are you there? Peter? 5 Stephen, are you still there? MR. FRANTZ: Stephen is here. 6 7 MR. ADAMS: Well, again, at the end of our discussion we'll make sure we catch everybody. 8 For opening thoughts I'd like to turn to 9 Tom and Kathryn for any thoughts they have at the 10 11 beginning here. 12 MR. BLOUNT: I'd like to say thank you to everyone that's participating today. 13 14 A research and test reactor streamlining 15 activity has become very visible in our organization. 16 It's one of the key issues that we need to deal with. 17 We recognize that. We've got a significant backlog 18 that we need to address, and that's part of what this effort is about. 19 But even beyond just dealing with the 20 21 immediate future and the existing backlog, we want to 22 insure that going forward we've got a defined process 23 that's going to allow us to be more effective and 24 efficient, and so that's a large part of what we hope to gain out of this effort.

First of all, we want to deal with the 1 2 existing backlog, but then beyond that, we want to have a process that is sufficient and accurate to deal 3 4 with any future licensing efforts in this area. 5 So we certainly appreciate your engagement and look forward to a very productive effort as we 6 7 move forward. And I want to say thanks for 8 MS. BROCK: indulging us again. This is our third meeting on this 9 10 So you'll see we've inched along in a subject. 11 meeting in September 2008 and again in March, and at 12 this meeting we finally have a product available in our draft interim staff guidance to really dig into 13 14 and talk about. So any comments you have, we need 15 them. We need your input. 16 So thank you. 17 Thank you, Tom; thank you, MR. ADAMS: Kathy. 18 19 Ι stated, the purpose of together today is to discuss with various stakeholders 20 21 the draft interim staff quidance for research reactor 22 license renewal. A couple of things I want 23 emphasize here. First is the word "draft." This is a work 24 25 in progress. That's why we're reaching out to the

various parties involved to get ideas and get feedback to make sure that we're heading in the right direction. So this is not a final document yet. This is not the definitive answer, but this is what we're putting on the table as the way we want to move forward for dealing with the research reactor renewals that are in house at the moment.

What we'll talk today a little bit about is background, and if you've been to the other meetings, you've heard some of this before, but for the folks that this is the first time they've been involved, this will be a little bit of background information that's new.

The details of the ISG, the interim staff guidance, is the philosophy that we use to arrive at how we believe we're meeting the guidance from the Commission and where we want to go on this, and I'll talk a little bit about the focused review for license renewal that's part of the ISG, and that's a document which tells the NRC reviewers how to take our standard review plan and use it for a focused license renewal.

Any questions? Any comments at this point?

MR. WEISS: Do you want questions at the end?

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11 1 MR. ADAMS: No, I'd rather have 2 discussion than listening to myself drone. comments, questions at this point? 3 4 (No response.) MR. ADAMS: So first we'll talk about what 5 the status of license renewals are. In house we have 6 7 21 applications for license renewal. Eighteen are considered to be in the backlog. We have a metric on 8 the amount of time that an application has been in 9 10 house, and once it passes that metric, we consider it 11 to be backlog versus being in a current queue. 12 Just to give you a taste of what we have been accomplishing, last year in fiscal year '08 we 13 14 completed the license renewals for Kansas, Ohio and 15 Oregon, and so far this fiscal year we've completed the Missouri University of Science and Technology. 16 Some of you might know that as the University of 17 Missouri, Rolla. 18 So while we're developing this process, we 19 are still moving forward, and you'll see we have plans 20 21 to keep moving forward even though we' re developing 22 the process. 23 Any questions, comments? 24 Here's the very short, abridged history of

If you go back in time, prior to

license renewal.

1976, license renewal was an administrative process. If you are a licensee and you were up for license renewal, you basically submitted a license amendment, asked for some period of time, three, five, ten, 20 years, and the NRC granted that based more on administrative aspects versus what I would call technical aspects.

In 1976 our Office of General Counsel gave the staff an opinion that license renewal was a significant step in the life cycle of a facility and that it needed to be more than just an administrative action on the part of the NRC, that a technical review of the license needed to be done to insure that the license and the tech specs and that the licensee could continue to operate for the requested renewal period while making sure that public health and safety were protected.

So starting in 1976 and I believe the last renewal that was done administratively was one for Idaho State back in the '76 time frame, but after 1976 we started doing full reviews. Those reviews had the same technical depth as initial licensing, and a number of the folk, licensees that are in the room today went through that process and had an NRC NUREG, which captures the result of the staff's evaluations.

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We'll jump from the '76 all the way to the late 1990s. The what I call current wave of renewal Up until the late 1990s, the applications began. early 2000s, we were keeping up with them. There weren't that many coming in, but then two things happened. A large amount of applications did come in over a short period of time, and that was a legacy of what had happened in the 1980s after the accident at TMT. NRC focus and resources were put responding to that, and a lot of scheduled work for research reactors was put on hold, including license renewal.

So it was sort of a parallel to the situation we have today. A lot of license renewals were in house, and they were dealt with over a short period of time, which meant 20 years later, they all came due over a short period of time.

So we had a spike in work load and we had 9/11 occur, which for several years was our main technical focus, was doing the work we needed to in the area of security and our security assessments, and making sure that we had all of that squared away.

We still were doing our best to keep the renewal applications that were in house moving at that point in time, but for the NRC folks, it was basically

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something they looked at when they weren't working on the security issues.

Also, licensees had difficulty answering some of our questions that we were sending out.

We jump forward again a number of years to just recently. In October of 2008, SECY 08-0161, entitled "Renewal Research and Test Reactor License Renewal Applications," was given to the Commission. That was our thinking and our ideas on how we would move forward on both what I call a short-term basis, how we would deal with the license renewals that were on the docket and in house and also on a longer term basis, on what we saw license renewal looking like in the future for, say, the renewal after the ones we're working on now.

The Commission looked at the paper, voted on it, and gave us what we call a staff requirements memorandum, and that was dated March 26th, 2009, which gave guidance to the staff on how to move forward, and in a slide to come we'll talk about some of that.

As Kathy mentioned, we have had a couple public meetings in this area. In September 2008, while we were working on our SECY paper, we did meet with the public and get some ideas about where they saw the challenges of license renewal and where they

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saw us moving forward.

And we had a second meeting in March which was just prior to getting the staff requirements memo, where we focused in a little bit more. I'd say the first meeting was from 50,000 feet, and the second meeting we were down around 10,000 feet, and now this next meeting we're down into the details of the plan we're moving forward.

Yes.

MR. WEISS: This is Sy Weiss.

Let me ask you a question. Prior to '76 and during the TMI issue time frame when your view was limited, there were no safety issues identified, were there?

MR. ADAMS: Not to my knowledge. There were a number of questions that came out of the reviews. The staff did do what appears to be looking back historically, some innovative things to get those license renewals out of the way, but they were mainly what I would call a traditional license renewals. I was a licensee during that period of time, and I was the recipient of an NRC license renewal, and it was pretty intense and complete.

MR. WEISS: But prior to '76 when it was administrative, the process still worked. There were

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1	no safety operational issues in any of the non-power
2	reactors.
3	MR. ADAMS: I guess I don't know what you,
4	when you say a safety issue what you mean.
5	MR. WEISS: Well, if you look at '76 to
6	now, there's a definite escalation in the type of
7	review going on for license renewal, and the question
8	I'm trying to get at is what is the reason for this
9	if, during the period when it was an administrative
10	process, nothing happened of safety significance.
11	MS. BROCK: So you're asking why we
12	changed?
13	MR. WEISS: Yes.
14	MS. BROCK: Is that something OGC can help
15	us with?
16	MS. UTTAL: The regulation requires
17	certain things, and I wasn't here in '76. I was still
18	in law school, but it may be that it was reviewed and
19	found out that it wasn't exactly compliant with the
20	regulations or the regulations had changed. I don't
21	know what was going on back there. So I don't know.
22	MR. ADAMS: You know, there were over the
23	years events at research reactors and, you know,
24	inspection findings that have various levels of safety
25	significance attached to them.

1	MS. BROCK: And there's lessons learned.
2	MR. ADAMS: It hasn't been, you know, a
3	completely without anything to talk about over those
4	years.
5	MR. BUTLER: A different question. Can we
6	make a date when you actually kind of started looking
7	at streamlining, started this latest effort on
8	streamlining? How many years ago was it that you
9	started looking at trying to streamline to address the
LO	backlog?
L1	It was way before 2008.
L2	MR. ADAMS: Yeah, it was. I mean, we had
L3	informal discussions over the years about looking at
L4	that. I would say that it became serious during the
L5	time we were developing the SECY paper. So the
L6	serious discussion was probably the 12 to 18 months
L7	leading up to the SECY paper in 2008.
L8	MR. BUTLER: So 2006 or something?
L9	MR. ADAMS: Yeah, that's that's, I
20	think, when we started putting our heads together and
21	having more and more of a discussion because it became
22	clearer and clearer that we needed to look at other
23	ways to reduce the backlog that was in house.
24	MR. BUTLER: Do you know how many FTE man-
25	hours you've put in to kind of develop this

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1	streamlined process?
2	MR. ADAMS: That I don't know.
3	MR. BUTLER: A significant amount?
4	MS. BROCK: I think recently we've put in
5	a significant amount of effort. Since about the first
6	of the year there's been a significant amount of
7	effort, but going back years we have not catalogued
8	all that together.
9	MR. BUTLER: I was just curious.
10	MR. ADAMS: I would say it's, you know,
11	maybe an FTE, but not ten FTEs. Any other questions
12	on history?
13	I'll just briefly talk about regulatory
14	structure. Here's some of the things we kept in mind
15	as we moved forward. One is as everyone who's in the
16	research reactor community knows, the Atomic Energy
17	Act, Section 104 of the Atomic Energy Act prescribes
18	minimum regulation necessary to insure public health
19	and safety. It tells us, the NRC, that we need to
20	apply the minimum regulation necessary to insure
21	public health and safety.
22	And I think over the years we've been
23	aware of that. I think we've done a pretty reasonable
24	job of that, and that was one of the constraints we
25	had in mind as we were looking at how to move forward.

Another one is that there is a license renewal process for power reactors in 10 CFR Part 54. That process does not apply. That was a conscious decision that was made by the staff when Part 54 was being developed. There were discussions about extending that methodology to research reactors, and there were a number of reasons why that wasn't done. basically was on how research reactors regulated and the other requirements that apply to did reactors that not apply to reactors.

So the decision was made not to sign the research reactors on to the additional requirements that would come with a Part 54 process.

Then if you look in the regulations, the applicable regulations in Part 50 govern the content of the application for research and test reactor operating licenses. That's in 10 CFR 5033 and 5034, and those regulations don't make any distinction between contents of initial application and contents of license renewals, and if the regulations are asking for a licensee that submits information, there is an assumption there that the NRC will review that information as part of their deliberations.

How we review it, that's up to the NRC,

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1 but the NRC will consider everything that's required 2 by the regulations. If I may interject for a 3 MR. HARDESTY: 4 minute, I've had several participants say that they 5 are having trouble hearing anybody other than Al and So I would remind you to please identify yourself 6 7 speak up for the participants on the phone, 8 please. 9 MR. ADAMS: Is that the only pick-up 10 point? 11 MR. HARDESTY: That's our only pick-up 12 point. And the last point I want to 13 MR. ADAMS: 14 make about regulatory structure is that the 15 longest term regulations state that the that research reactor can have or a license for utilization 16 17 or production facility can have is 40 years. that means is at the end of the 40 years we're 18 renewing the license, but we're renewing it in the 19 form of a superseding new license, so to speak. 20 21 So it's a little different than just a 22 license renewal. So if you look at the amount of time 23 that has passed and if you're going to add the term of 24 license renewal you've asked for at this point, add it 25 up with how long you've been in business, and the

1 answer is more than 40, that means that what we're be issuing you is a superseding renewed 2 3 license. 4 You're not going to get a new docket 5 You're not going to get a new license number. Your old R- number will still be yours, but from a 6 7 regulatory standpoint, the timers with the issuance of that license are being reset to zero and starting 8 another 40-year period. 9 No, Susan will tell me what it means. 10 11 MR. WEISS: So does that mean we can get a 12 40-year license at this point? 13 MS. UTTAL: No, you get 20. 14 MR. WEISS: He just said it can be -- it might extend beyond 40 years. 15 MS. UTTAL: No, no. The present license 16 17 that you have. I think the renewal, but I'm not sure. I don't have my regs with me. 18 It has been the staff practice 19 MR. ADAMS: to renew licenses for 20 years, again, for a variety 20 21 reasons. One in particular is there is 22 requirement for research and test reactors to keep 23 their safety analysis reports up to date. So, you 24 know, the NRC looking at that formally once ever 20 25 years, we felt going out 40 years and looking only

1 once every 40 years was a little too long of a time 2 period. So it's a tradeoff for not having to keep 3 4 your SAR up to date, is that we renew the licenses for 5 20 years. MR. BUTLER: But it is for a new license 6 7 what we just said. MS. UTTAL: It's a renewed license. 8 It's a renewed license. 9 MR. ADAMS: 10 MS. UTTAL: It will have the same license 11 number, and it will be called a renewed license. 12 MR. BUTLER: But the term is going to be different? The term is different? 13 14 MR. REESE: Yeah, it's my understanding --15 this is Steve Reese -- that the initial application is 16 for 40 years and regs are actually silent on research 17 reactors, but the default they fall back on is the 20year license that's required for commercial site. 18 19 MR. ADAMS: And from your point of view 20 this is probably transparent to a large extent. 21 example, Steve, your renewed license was new 22 license, and I bet you have to look real close to even 23 So it's due with some of the review quess that. 24 criteria we apply and some of the words that go in the 25 license.

1	Do you want to add anything, Susan?
2	MS. UTTAL: No.
3	MR. ADAMS: Okay. Any other questions on
4	this issue?
5	MR. HARDESTY: I apologize for keeping
6	injecting. This is Duane.
7	Still getting a lot of complaints, Susan.
8	They cannot understand you at all. I ask that you
9	really speak
10	MS. UTTAL: No.
11	(Laughter.)
12	MS. BROCK: Do you want to come up here?
13	MS. UTTAL: No, I'm fine where I am. I'll
14	speak up.
15	MR. ADAMS: All right. I'll move on.
16	We'll start talking about the draft interim staff
17	guidance.
18	The staff requirements memo from the
19	Commission directed us to do a number of things, asked
20	us to use a graded approach in coming up with our
21	guidance; asked us to focus on the most significant
22	aspects of renewal. We have to meet regulatory
23	requirements; asked us not to necessarily reanalyze
24	items which have been looked at in the past; and then
25	asked us to use insights from the security

assessments.

And I think the guidance that we put together meets all those constraints and criteria. Also, our goal is to eliminate the backlog by September 2010. That's an awful lot of work in a short period of time, and we are doing a number of things to aim toward success here.

One is developing this guidance, developing the guidance. Another one is beefing up our staff. Another thing we're doing is getting contracting help, expertise as needed.

What this means then, that if you have a license renewal request in with us, you're going to start hearing from us this summer. We plan to work closely with you. Part of the interim staff guidance, one of its goals is to reduce the burden on the licensees versus the traditional process. I make no such claim for the NRC staff.

(Laughter.)

MR. ADAMS: We're going to commit the resources we need to do this. Our burden will probably go up, but you know, the goal is to get this done by the time with constraints we have, while making it less of a burden on you as licensees.

We'll work closely with you. We will have

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a lot of discussions with you. We will be with you every step of the way. In the past we have done things like asked you a set of questions, and then we've been distracted to go work on other things. Well, that's not going to happen here. If we ask questions, we'll be there to explain them to you. We'll be there to work with you.

And sometimes you submit answers to questions, and then again we're off doing other things. That won't happen in this case. Up front we're going to tell you what our goal to getting the work done with you is, and we're going to do our best to meet that.

That means we're going to ask the licensees to hold up their end of the bargain, which will be to work with us and answer any questions we have in a timely manner so we can get this done, get this off your plate, too, and move on.

Any questions about that?

(No response.)

MR. ADAMS: So continuing to discuss what the draft interim staff guidance looks like, we're going to take a graded approach which is what I'll call two tiers used, upper tier, lower tier, and there's a break point, which is two megawatts thermal

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power.

If you're in for license renewal and you have a power level of two megawatts thermal or greater, you're going to undergo what I call a traditional review. That means we're going to use NUREG 1537 as written and use that as the staff guidance for looking over the application.

If you're at a power level less than two megawatts thermal, you will undergo what we call a focused review, which the next couple of slides will talk about. You might ask why two megawatts. Where did we get that number from?

And the answer is it's a longstanding transition point in the research reactor regulation, and I give a couple of examples. The inspection program uses it to define Class 1 versus Class 2 facilities. That indicates where facilities get more attention from the inspection program. You see it used in emergency planning. If you're greater than two megawatts, normally your emergency planning zone goes beyond the boundaries of your reactor building.

Also, you see it in security. If you look at 10 CFR 7360(f), which is the sabotage rule, it's applicable to research and test reactors two megawatts thermal and above. And, of course, there are

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1 technical research and technical work that's been done 2 to support these decisions. Along with taking a graded approach the 3 4 Commission asked us to look at the insights we gained from doing security assessments. I can't go into the 5 details of that because most of that work 6 7 safeguards, but we did look at risk, the risk that the reactors presented against attributes as power level, 8 fission product inventory, doses, and what that work 9 10 confirmed is that the historical work, especially the 11 two -- uprate point, you know, makes sense and 12 continues to make sense. 13 So I think what I want you to come away 14 with is that it isn't a random number. It's a number 15 that makes sense from a risk and a technical point of 16 view. 17 Any comments on this slide before I move forward? 18 19 MR. MYERS: Tom Myers, NIST. Since you're using a graded approach for 20 21 two megawatts and above, is it reasonable that the 22 definition of a test reactor could be based not solely 23 on power level? 24 MR. ADAMS: We are not -- the work we're 25 doing here applies to the reactors that are in the

renew queue at the moment, and in a minute you'll see where NIST is, but, no, the work we've done here, in fact, you'll see just the word "research reactors" in a lot of places because what we're doing here doesn't apply to test reactors.

And at least as part of this effort we're not looking at the definition of test reactor, but the other effort to look at the long-term license renewal efforts, you know, that's always something that we can step back and look at.

I know this is an issue that has historically come up from time to time and the staff did a number of years ago look at one petition for rulemaking in this area. So the answer is, sure, it's not off the table.

Any other questions?

MR. BLOUNT: this is part of the longer term, if I could just add onto that.

MR. ADAMS: Yeah.

MR. BLOUNT: Part of the longer term plan in this research and test reactor arena is to relook at what our regulations are there, and are there places where we need to be or should be looking at making improvements. That could be one of them that we -- well, certainly something that we want to

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consider.

Now, whether or not it happens or changes, that would be for future discussion, but we wouldn't want to lose that dialogue.

MR. WEISS: The research and test reactor community could use the benefits of the backfit rule and have that apply to reactors.

MR. ADAMS: That's a rule that technically does not apply to research reactors. To apply that would, you know, require analysis to be done and, you know, that analysis could lead -- will lead where it leads. That's also, you know, another decision that we can -- you know, that the community can discuss with us if you want to, if the community wants to go in that direction.

Any more comments?

MR. BLOUNT: I guess part of this conversation here is we want to warm you up to the idea that once we move beyond this initial -- get this initial piece behind us, this backlog behind us, let's take a look at where we are and what's available and what should we be doing because there may be some enhancements that we want to take advantage of. There could be a host of other areas, but we need to be prepared to talk to that so that when we get there, it

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1 doesn't turn into a mad rush and we're trying 2 figure out what is it we're going to look at or not look at, I guess is really what my thought is. 3 4 MS. BROCK: And we are thinking of getting 5 there within the next year or so. This isn't way down This is pretty much right on the heels of 6 7 this interim process development 8 MR. BLOUNT: Right. Any other comments, questions? 9 MR. ADAMS: 10 BLOUNT: Kathryn is required to get MR. 11 this done before she can leave the branch. 12 (Laughter.) MS. BROCK: I retire in 2030. 13 14 (Laughter.) 15 MR. FRANTZ: It is difficult to hear. MR. ADAMS: 16 Okay. I'll move on to the 17 next slide in the draft interim staff guidance, 18 this talks about the focusing review on the most significant areas, and we have what I would call the 19 20 primary review areas. Those are the ones that we 21 consider to have the most safety significance to them, 22 and that's the reactor design and operation, you're familiar with NUREG 1537, that's Chapter 4 of 23 that NUREG. 24

The accident analysis, that's Chapter 13,

and also looking at the technical specifications which are the legal agreement on control of safety significant aspects of your operation between the NRC and the licensee. Those are scattered throughout the SAR in various chapters. So those are the three main areas we're going to focus on.

Then if you step back a little bit, I have what I call secondary review areas: radiation protection. You know, if you're a member of the public, that's probably the question that jumps into your mind first, is, you know, am I protected from radiation. You know, they're not wondering what your departure from nuclear boiling ratio is.

So we're looking at radiation protection, how doses are calculated, and in parentheses I say "inspection results inform." Here's an example where we're applying some streamlining. For example, NUREG 1537 tells the NRC reviewer to look at your radiation protection program required by Part 20.

What the reviewer is going to do is pull -- and we're working on the details -- say, the last five inspection cycles where the NRC inspectors have looked at that exact same thing, the radiation protection program. They look at it. They discuss what it's about, and they come to a conclusion that --

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1 the inspector concludes that the licensee's radiation 2 protection program meets the regulations. That's essentially the same finding we're 3 4 looking to make as a technical reviewer, and so we 5 will as part of what we're looking at in the area of radiation protection, we'll look at the inspection 6 7 results of the radiation protection program. So that hopefully will relieve some of the 8 burden from you as licensees of getting questions in 9 10 this area. 11 Likewise if we pull those inspection 12 reports and they show a troubled history, then the technical reviewer will sit down and take a harder 13 14 look at the documentation from a reviewer end. 15 example of streamlining there's an and taking advantage of NRC's capabilities. 16 And actually applying the 17 MR. BLOUNT: performance review perspective to it. So, you know, 18 it's going to be based in part on the performance of 19 20 the facility. MR. WEISS: I would think that if that's 21 22 the case, then radiation protection should be the main 23

thrust of your review. To change the GMB ratio based on another calculation, that's not doing anything to improve safety. Okay? It's radiation protection,

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things that really happen, things that occur. That's where you can do some good.

But to know I'm okay ADAMS: radiation protection, I have to know that, one, that the operation is safe and, two, that there's sufficient margins and, three, that we have sufficient control on those margins, which is why we're looking at reactor design and operation, including things like, neutronics you'll see, and thermal as that, hydraulics, to know one, the reactor operating safely; one, that we have a sufficient margin above the operational limits that we know that the reactor can tolerate reasonable upsets; and three, the technical specifications which control all the aspects of the operation

So all of that leads to findings in radiation protection and accident analysis. Unlike the power reactors, there is very few prescriptive, technical requirements on research reactors. The general design criteria doesn't apply. Station blackout doesn't apply. The maintenance room doesn't apply.

You know, I can rattle off all sorts of technical power reactor rules that don't apply. What does apply is meeting Part 20, and so you're right.

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All of this review we do, that's the bottom line, that by looking at all of these things and by putting the right controls in place, that we can say the net result of running this reactor from both normal operation and accident conditions is doses within Part 20.

So in a way, yes, we're doing exactly what you're -
MR. WEISS: But you're basing everything

MR. WEISS: But you're basing everything on calculations and from year to year, calculational models change, methods change. Some people think things are improving in a calculational area. Other people think no.

You know, there's nothing really that you're doing with these calculations that are impacting on the reactor. Radiation protection is.

MR. BLOUNT: And I would certainly agree with that. Radiation protection gets to the bottom line, but part of what I think Al is providing for us is how do we get to that bottom line.

The radiation protection program itself provides demonstrable information that says, yeah, that program is functioning the way we want. And that's why we're looking at it. That's certainly why we're interested in it, because we want to be able to

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1 make those assessments and judgments. 2 But by the same token we also want 3 understand the basis behind it. What allows us to say 4 that that program has the underpinnings, has 5 basis, has the basic building blocks to allow it to be effective? 6 7 And where that gets to is the design and operation, accident analysis in the tech specs. 8

MR. ADAMS: And I can review your radiation protection program, and that won't tell me if you can meet your shutdown margin. It won't tell me if your excess reactivity is too high. So the radiation protection is one aspect of a number of things we have to look at because we still have the responsibility to come to reasonable assurance of public health and safety.

And any other questions about that aspect?

MR. REESE: Steve Reese from Oregon State.

When we are going through the review, the financial considerations, we're kind of a moving target for a while. Has the NRC come to some equilibrium on what the requirements will be?

MR. ADAMS: Yes. You were early on in that development. We have, I think, a pretty consistent set of information we're looking for, and

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when we get to that with the licensees, along with our questions will examples of answers other come licensees have given that we found acceptable along with the ability to talk to our technical reviewers to get an understanding of what we're really looking for, you know, how other licensees have addressed these issues, where this expertise lies within your organization.

You know, this is a little different. You know, you're used to looking at technical stuff, and all of a sudden we're asking financial questions, and it turns out that once you find the person in your university who's the expert on this, the question is answered very quickly and very easily.

So we've done enough of these now that we can now help you, you know, help point you in the direction of where that person is. So I think that as a licensee you'll find, you know, the questions to be a lot easier to answer than the first couple that went through it as we were still in our learning curve.

MR. REESE: Got you.

MR. ADAMS: And you've mentioned another secondary reviewer, financial and an environmental review. That's a review the NRC has to do in accordance with Part 51 of our regulations to meet the

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NEPA requirements. So that's something we have to do. We still would need your help.

We look at your environmental report, and we may need to ask you some questions to allow us to fully understand the environmental impact of continued operations.

Questions, comments?

MR. HARDESTY: Before you proceed further, Al, there was a question on the last slide from the Webinar audience. The question was if the renewal includes a power increase from less than two megawatts thermal to greater than two megawatts thermal, will the traditional review apply?

MR. ADAMS: That's interesting. We haven't thought about that because we don't have any of those in house. So this set of guidance we put together is to address just the license renewals we have in house. How we're going to move in the future, that's part of the long-term plan, but, I mean, my gut feeling, to answer that question would be we get a full, traditional review because we're looking at a that we're going to license above reactor megawatts when the renewal is done.

MR. HARDESTY: This is Duane again.

Didn't we also say that part of our

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1 criteria was that any power uprate would undergo a 2 full review? 3 MR. ADAMS: We'll get to that also. 4 Any other questions, comments? 5 (No response.) MR. ADAMS: So I'll continue to talk about 6 7 the focused review. We will look at other parts of the SAR as needed to support the focused review area. 8 For example, when we review your accident analysis if 9 10 see that you take credit for engineered safety 11 features and you take credit to have those features 12 result in consequences that are acceptable, then we will go and take a look at those specific engineered 13 14 safety features to make sure that we're satisfied that 15 they'll do their whatever actions they need to do successfully. 16 17 Also, in the case of looking at technical specification basis, that if a technical specification 18 19 points into a chapter that isn't getting the full 20 review, we will look at that aspect of that chapter, 21 enough of a look to make sure that the basis for the 22 technical specification is technically sound. 23 point The other is develop we may 24 independent neutronic and thermal hvdraulic

calculations as part of our independent evaluation of

1	your SAR. There's a number of tools we can use to
2	verify what you're telling us to supplement and our
3	knowledge of what you're telling us, and so don't be
4	surprised if you find out that we've set up the models
5	and we've run a neutronic and thermal hydraulic
6	calculation for your facility, but that's something
7	we're going to do.
8	MR. BUTLER: Are you going to do that for
9	all the facilities?
10	MR. ADAMS: It will depend on what the SAR
11	says or doesn't say. You know, we see SARs with
12	varying levels of depth of discussion in this area.
13	MR. BUTLER: We spent a vast amount of
14	resources developing doing new code work.
15	MR. ADAMS: Right. We will look at, you
16	know, we will review your code work and
17	MR. BUTLER: do it I wouldn't bother.
18	(Laughter.)
19	MR. ADAMS: And you know, how much we do
20	independently depends on, you know, what we find when
21	we do the review. Okay?
22	The point I'm trying to make here is that,
23	again, what we're trying to do is manage the burden on
24	you as a licensee, and so there may be a case where we
25	do some calculations to verify what you're telling us

1 in the SAR, but we may do the calculations so we can 2 to our own independent understanding of what 3 you're saying to us. 4 Any questions, comments? 5 MR. WEISS: And these comments will be peer reviewed and benchmarked? 6 7 MR. ADAMS: Uh-huh. Yes, it's not going to be a code I write up in my spare time. 8 And we've been talking about what we're 9 10 Well, here's a slide about where things going to do. will be streamlined. Here's a list of various topics 11 12 in the SAR, and except to carry out our reviews in the primary and secondary review areas, in depth reviews 13 14 won't be made in these areas. 15 And I use the word "in depth." We're 16 going to read the entire SAR and say we read the 17 reactor coolant system part of your SAR and we see 18 something in there that we think will not allow us to come to a reasonable assurance conclusion. 19 20 reviewers will talk to that, talk to management about 21 that, and we'll decide what to do with that, issues 22 like that. 23 We don't expect that to be common, but 24 it's not a case where if there's something that's not

on the list of the primary and secondary that we're

just not going to look at it at all. It is going to get a --

MR. BLOUNT: A reading.

MR. ADAMS: -- a read and a level of review, but it won't get an in depth level of review, and if we approach you on it, it's going to be because we are concerned enough about that issue that we're not sure we can come to the conclusions we need to come to.

So you can see site characteristics, design of structure system components, reactor cooling systems, I&C, electrical power, auxiliary systems, experimental facilities and programs and conduct of operations. Again, this doesn't mean we're not going to look at those. We will look at these to verify technical specifications. We'll look at these if they get involved in the accident scenarios.

I don't mention emergency planning, security or another one is operator requalification, what I call the plans, that a couple of things could happen here; that as part of your license renewal application you said, "Hey, NRC, I rewrote my requal plan, and we want you to look at it as part of the license renewal," or, "I rewrote my security plan or my EP plan."

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1 If you flag those, here's a new plan we want you to look at and approve. What we will do is 2 3 will sit down and the reviewers will 4 management to decide what's the best path forward, 5 looking at those as part of renewal, looking at those as a separate action. So we will look at those. 6 7 If you submitted an application to us and said, "Do you know what? I've got emergency plans, 8 security plans that have been approved by NRC. 9 10 just going to keep using those," then our response to 11 that is at least for this plan, is the answer is, 12 "Fine. You've got a plan. We've looked at it. reviewed it. We've accepted it. We will move forward 13 14 from there." 15 Questions about this slide? MR. WEISS: So this guidance is not really 16 impacting on what we submit. We still have to submit. 17 18 You've already submitted. MS. BROCK: 19 MR. ADAMS: No, you've already submitted 20 an SAR. We're going to review what you've given us on the docket, and we'll get to how that will impact 21 22 things in a second. 23 MR. HARDESTY: There's another question from the audience that asked for more clarification of 24 25 whether or not it meant the areas outside of the in

1 depth reviews will not need to be updated in the SAR. 2 MR. ADAMS: Well, again, this is guidance 3 for dealing with the SARs that are already in house 4 and on the docket. So you already have an application 5 for license renewal. Does that answer the question? So I'm not 6 7 going to send you a question and say, "Oh, submit a new SAR that just talks about the focused areas." 8 We're not going to do that. We're going to review 9 what's on the docket. 10 11 Next slide, treatment of review issues. 12 Some folks have review requests in that the NRC staff has started working on. Some folks have 13 14 received requests for additional information from us. 15 I'm sorry. I'm talking about a Oops. subject that isn't on this slide yet. Next slide. 16 17 I'm sorry. 18 changes outside of license Requested As part of license renewal it's 19 Forgive me. not uncommon for licensees to say, "Okay. As long as 20 21 I'm going through license renewal, here's some things 22 I want to change." 23 The most obvious example of that is I want 24 to increase my power, but there's also other things 25 licensees want to change as part of license

1 renewal. For example, Steve Reese had a requirement 2 on reactor period and asked to have that changed. So 3 there's issues like that which are sort of outside our 4 focused areas. 5 What we're going to do is ask you, the licensee, to flag the changes you want to make to your 6 7 license, that you are making as part of license renewal, and then we will determine on a case-by-case 8 basis how we will move forward on them, if we're going 9 10 to review them as part of the license renewal or if 11 we're going to handle that as a separate action. 12 If I confused you, let me I'm sorry. If you have questions, I'm open for questions. 13 14 MR. JENKINS: Jere Jenkins from Purdue. 15 If we have already submitted but didn't do necessary flags, 16 do we need to something that says --17 18 MR. ADAMS: We will be contacting you after we -- well, in your case, you've asked for a 19 20 power increase. So, no, we're going to look at your 21 entire, SAR in some level of detail. 22 MR. JENKINS: We asked for a few other tech spec changes as well. 23 24 MR. ADAMS: Yeah, but it's a case where, 25 again, if you ask for something that a pure license

renewal would be nothing changes, everything stays the same; that you just want more time given everything stays the same, but normally license renewal is a natural point in time to say, "Look. I want to add something. I want to maybe subtract something. I want to change some limits. I want to give myself some additional capability."

Because before we did a complete redo of the entire SAR, we caught those things; we flagged those things; we reviewed those things; and we specifically explained them and approved them. We want to make sure that in the course of doing this streamlined review that we don't miss something. We would not want to inadvertently approve something that we did not review and fully evaluate.

Any questions on that issue? Yes.

MR. HARDESTY: The question is: for future applications is there still the expectation that the applicant will fully address 1537, Part 1?

MR. ADAMS: That is part of what I would call the long-term plan for license renewal and we're still thinking about what the future will look like.

1537 is going to be there. How much of it gets addressed as part of license renewal on a form, we're still working on that, and we'll probably be coming

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and talking to you about that.

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I hope that answers the question.

slide, past use of renewals. Obviously that's one of the things the Commission asked us to do is to consider what we've done in the Past reviews can take a number of forms. could be a past license renewal. It could be that you've never been licensed renewal and the last NRC full review was your initial licensing, and for some through HEU-LEU conversions folks who have gone recently, there was a lot of review and evaluation work captured there.

So what we're telling the reviewers is they have some flexibility as they do these reviews to look at what the NRC has done in the past and if that information is still valid, if they review it and verify it that they can use the work that's been done in the past.

You know, there are different tradeoffs here. If you go and look at, say, an NRC initial licensing evaluation from like 1960, they don't go into a lot of depth. They don't go into a lot of reasoning. You know, some of them run three or four pages. You know, a reviewer is going to have to look at that and make a decision if it's easier just to go

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and review the SAR that's sitting on the table in front of him as it is to try to figure out and reconstitute, you know, something that happened 50 years ago and then deciding using that as a start what's happened between 1960 and 2009.

So we're giving the reviewers to use their judgment and have some flexibility. I think the clearest and most concrete example of this is that the licensees that have gone through LEU $_{
m HEU}$ to conversions recently, those NRC reviews are going to be used heavily by the reviewer as part of the license So the Chapter 4, Chapter 13, a lot of that renewal. for those licensees that review is already done.

You know, we'll make sure that nothing has changed since we did that review a couple of years ago, but you know, we won't be coming back to you and asking the fundamental questions we did during the conversion reviews. So there is an example of how we will use past reviews and also reduce the burden of license renewal on the licensees.

Any questions on that?

(No response.)

MR. ADAMS: Here's a slide I was trying to explain before I got two slides in front of myself.

Treatment of applications and process. Some folks

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have -- you know, everybody who is affected by this has an application sitting in house with NRC. Some of them we've started to review. Some folks have received requests for additional information, and if you're in that category, we will be contacting you to tell you that at this point in time you can stop working on that request.

we go through your SAR using the interim staff guidance, there may be RAIs that come We will get you those RAIs. out of that. cases they might look exactly like the RAIs we sent you before, but what I'm expecting is that a focused of RAIs will probably be shorter than traditional set of RAIs.

What if we've asked you RAIs and you've answered them and they're on the docket? We're going to look at those answers, and if there's something in those answers which we believe needs to be followed up on, we will do that.

What we're not going to do is leave what we believe is inaccurate or incorrect information on the docket. So you know, if you submit a calculation to us, even if it turns out it could be out of scope in the focused review, if we look at that calculation and say, "Wow, they multiplied two and two together

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and got 47," we're going to come back and talk to you about that because we want the information on the docket to be complete. So we'll follow up on issues identified.

Any questions in that area about how we're going to handle applications in progress?

MR. STEVE MILLER: If a licensee has asked for something, Jere, for instance, if he decided all of a sudden in light of this that you don't want to power uprate; you'll do it at another time; will you have an opportunity to fix the application to reflect?

MR. ADAMS: The answer is, you know, we will review what you ask of us.

MR. BLOUNT: And if I can jump in here, there will be a dialogue between us and licensees on the particular application. So we want to make sure we understand it and also make sure, you know, how we're going to address.

So if at that time the questions become, "Hey, I really don't want this power uprate now; I'll come back to you in a year or two years," five years, whatever, we can look at that at that point, and I think it would then be a conversation that will have to say, "Okay. I understand. The application is changing and this moves it out to this pot and this

pot.	
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MR. ADAMS: But what becomes interesting in that case is if you've handed me an application that's written for a megawatt and right now you're a 250 kilowatt reactor and you say, "Well, forget about it," I still have an application sitting in front of me that's written for a higher power level, and when I renew you, I'm accepting your SAR.

So it will become very difficult to separate, you know, the different size grains of sand in that application so to speak.

MR. STEVE MILLER: I picked something a little bit less onerous, but I didn't have anything in mind when I asked the question.

MR. ADAMS: Well, I mean, for instance, let's say like in Steve's application he requested to have the scram on short reactor period taken out of the license and that no longer be a tech spec, and let's say Steve came to me and said, "Do you know what? I changed my mind. I want that to say in there." I mean, that we can easily separate out and handle.

MR. STEVE MILLER: Okay. That was more the scope.

MR. ADAMS: Right, and that we would just

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Τ	document then in the SAR that the licensee requested
2	this and then, you know, withdrew that request and
3	what we've approved is X, basically continuing the
4	status quo.
5	MR. BLOUNT: I think we've got a question
6	from the audience.
7	MS. MONTGOMERY: From now on can you
8	repeat the question? When you get a question can you
9	repeat the question so we all can hear it?
10	THE REPORTER: Can you give your name,
11	please?
12	MS. MONTGOMERY: Cindy Montgomery.
13	MR. ADAMS: Are you talking
14	MS. MONTGOMERY: Because I couldn't hear
15	Steve's question and then it became harder to follow
16	the answer.
17	MR. ADAMS: Okay.
18	MR. BLOUNT: The question is can you
19	repeat the question.
20	MR. ADAMS: Yes, I will do my best to
21	repeat the question.
22	MR. HARDESTY: The audience says that
23	would be nice
24	MR. ADAMS: The folks on the phone there,
25	there's some conversations going on in the background.

If you could mute your phones if you're not directly asking us a question, that would help.

So any other questions about applications in progress, what we're planning to do about those?

(No response.)

MR. ADAMS: The next topic is opportunity for hearing. If we have noticed your application for opportunity for hearing, we do not plan to notice it again. Your application hasn't changed. We are changing the process, but that's why we're having meetings like this and having a public comment. So nothing should change in your application.

Any questions about that? Comments? (No response.)

MR. ADAMS: Here's an issue. Someone asked earlier about power increases. If you've asked for a license renewal and a power increase together, we will be using the what I call traditional method, standard review plan of 1537 because power increases can have impacts on many aspects of the facility beyond what we're looking at in the focused review. We can to make sure that when we do give you your power increase that we've looked at it from a complete point of view.

Steve.

1	MR. REESE: Steve Reese.
2	I just have a question. You talk about
3	the difference between focused review and a standard
4	review. As a licensee, I'm not sure about this. It's
5	the reason why I'm asking.
6	How much effort do you spend on material
7	outside of four and 13?
8	MR. ADAMS: How much time?
9	The question was when the NRC does a
10	review how much of the effort of our review is outside
11	of four and 13.
12	No, you're right. Four and 13 are the
13	major review areas. I'd say well over half is outside
14	of those.
15	MR. REESE: Really?
16	MR. ADAMS: Yeah.
17	MR. REESE: Okay. From a licensee's point
18	of view, it would seem that most of the work was on
19	four and 13.
20	MR. ADAMS: It turns out that probably the
21	most technically significant questions will be in
22	those areas, yes.
23	MR. REESE: Okay.
24	MR. ADAMS: But as far as the work we do,
25	we look at it, you know, in the traditional review we
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1	look at the entire SAR.
2	MR. REESE: So it could save you a
3	considerable amount of time then.
4	MR. ADAMS: Again, the goal isn't to save
5	NRC time. The goal is to make things easier for you
6	as a licensee to reduce the burden of license renewal.
7	MR. BLOUNT: So part of that though is
8	also to make our process efficient and effective,
9	which goes to that. But in alignment with what Al was
10	saying, we recognize there's going to be a burden on
11	the staff. That's certainly going to be a lift.
12	MR. BUTLER: Ralph Butler.
13	I think that the goal is to reduce the
14	backlog.
15	MR. ADAMS: Yes.
16	MR. BLOUNT: Yes, and for us that's
17	efficiency and effectiveness.
18	MR. BUTLER: The question is what's the
19	question before us and while we're looking at
20	streamlining and why you're looking at streamlining
21	and see if we can reduce the backlog.
22	MR. BLOUNT: That's right. That's the
23	immediate goal, but beyond that immediate goal is
24	going to be in license renewal space, RTRs, and this
25	gets to the long-term question, why is it that we can

renew -- and not trying to start an argument -- but why is it we can renew a power reactor but looking at a limited set of issues and we don't do something similar in RTR space?

And right now part of the reason for that is because the regulations don't necessarily address that. So our longer term goal, this is going to set us up to some degree to get to a new licensing, a license renewal plate, but at the same time, right now we need to talk about it. We need to deal with the backlog.

MR. BUTLER: Ralph Butler.

I guess the question that I have is the goal is to reduce the backlog by 2010. So they're talking 15 months down the road, and we're working on draft interim guidance. The question is to reach that goal would time and resources be better spent just doing the full review on all of them and getting them done versus this?

It's just a question.

MR. BLOUNT: I understand.

MS. BROCK: The staff did talk about that at length, and we came down to deciding that it was going to assist us in reducing the backlog by streamlining and picking out the areas that are most

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1	important for safety.
2	MR. BUTLER: But I think the question is
3	Ralph Butler again the question is, is it going
4	to streamline and reduce your level of effort enough
5	to make up for the time you spent developing the
6	process?
7	MR. ADAMS: We believe so.
8	MS. BROCK: Yes.
9	MR. BUTLER: Okay.
10	MR. ADAMS: Any other questions or
11	comments on that point?
12	MR. REESE: Steve Reese from Oregon State
13	again.
14	How many in general of the RAIs you send
15	back to licensees, how many deal with issues outside
16	of 4 and 13?
17	MR. ADAMS: I would say roughly half.
18	MR. REESE: So it's about the same as the
19	effort that you put into it?
20	MR. ADAMS: It's about the same as the
21	effort.
22	MR. REESE: Okay.
23	MS. BROCK: Pardon me. On the phone could
24	you put your phone on mute, please? This is Kathryn
25	Brock.
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1 MR. BUTLER: Hey, Steve, we can hear you 2 talking. 3 (Laughter.) 4 MS. BROCK: Thank you. 5 MR. ADAMS: Any other? MS. BROCK: Did your question 6 get 7 answered, Steve? Yeah, that was perfect. 8 MR. REESE: I'll move on then. 9 MR. ADAMS: Safety 10 evaluation report. The NRC is still going to write an 11 SER to capture the results of the review and serve as a documentation of our evaluation. 12 The format you'll see will look a little different. You're used to 13 14 seeing, you know, 18, 19 chapters. You're probably 15 going to see an SER that has an introduction and talks 16 talks about. technical the reactor, 17 specifications, talks about accident analysis, 18 blended in there it talks about also financial and 19 radiation protection, and you know, discusses That's going to be probably the extent 20 conclusions. 21 of it. 22 So it will be shorter than what you're 23 used to seeing, and the scope of it will reflect the focused reviews. 24

O'KELLY:

MR.

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This

is

Sean

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O'Kelly,

1	University of Texas.
2	I was in the SER. I would still like to
3	see, although I recognize it reflected the focused
4	review, but at least NRC comments somewhere in there
5	that the other chapters were reviewed based upon some
6	other criteria so that at least it's addressed for the
7	public document of the SER. The whole package was
8	reviewed with the in depth focused review on specific
9	chapters.
10	MR. ADAMS: Right now what we're thinking
11	about is that in sort of the introduction where the
12	NRC explains what they've done, there will be a
13	statement that the review was carried out in
14	accordance with the standard review plan and the
15	interim staff guidance.
16	MR. O'KELLY: Okay. That would be fine.
17	MR. ADAMS: Yeah. I mean, for those areas
18	that I'm not digging into in depth, I'm not going to
19	try to I'm not going to you know, if I don't do
20	a review in that area, I can't document anything.
21	Any other questions, comments?
22	(No response.)
23	MR. ADAMS: Getting near the end here, and

are in the queue. Where do we see you fouling up?

the next couple of slides are for those licensees that

24

Three reviews, NIST, MIT and the power increase at MIT and Penn State that we have been performing the traditional review on those licensees, and we are significantly down that path, and so our plan is to just finish up those license renewals using the traditional review even though if we were starting from scratch and we had done no work whatsoever, at least in the case of Penn State we would have taken a focused path, but we've done enough work on Penn State that at this point we believe that's the most expedient way to finish it.

Traditional review based on power level, applying our streamline methodology, that will be MURR and Rhode Island because both of those have a thermal power level two megawatts or above.

Licensees that will get a traditional review based on the fact they requested a power increase are Utah, Reed, Purdue and Dow, and you notice I indicate that Purdue and Dow are not in the backlog.

What that means for scheduling purposes, our initial focus is going to be looking at facilities that are in the backlog and then once we knock one of those off and have an opening end, then the licensee that's technically not in the backlog will come into

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the queue and be worked on.

And the facilities that right now we see getting a focused review, you can see the list there. There's 12 of them and, again, USGS I've got them flagged as not being in the backlog. USGS, Dow, those applications have come in the last couple of months.

I just want to say a couple of words on the focused review. The interim staff guidance, the focus review plan, it's been made available in a draft form for the public to look at and provide comments on. The review plan is based on NUREG 1537. The guidance tells the reviewer how to apply 1537 to a focused review.

When we look at your technical specifications, we're going to look at 1537, and also we're going to pull out ANS 15.1, the 2007 version.

Now, I know that your applications, the tech specs provided with your applications were not based on the 2007 version, but given that the 2007 version is the latest thinking of the Standards Committee, that's what we're going to use.

The changes between the 2007 version and the prior version, I would say the changes are not significant or evolutionary versus revolutionary, and those areas, again, will work with you to describe

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those areas and work through it.

We're doing a number of things. One of the things we're doing as an agency is we're looking at the old Division 2 reg. guides, and some of those reg. guides date back to the '70s. We are working on updating those reg. guides and bringing them up to date, and one of the things we're looking at is endorsing 15.1 directly by a reg. guide. So we are looking at a lot of aspects of license renewal and licensing in general.

I think I mentioned before the NRC reviewer will look at the entire SAR. The focus is going to be on the significant areas for renewal, but we need to make sure that there isn't something hidden away in an area that's not focused that would give us difficulty coming to the conclusions we need to make as far as reasonable assurance of public health and safety though.

Any questions on that?

MR. HARDESTY: This is a Webinar audience question. It says: how will any transition cores or partial loadings with LEU fuel be handled? For example, if an LEU test assembly is inserted into a currently loaded HEU core, will this be done under a testing condition or will a SAR change be needed?

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MR. ADAMS: Well, that's a very interesting question, and I'm going to take the easy way out, and I know why that question is being asked, and that's really outside the scope of license renewal. HEU/LEU conversions are not going to be impacted by the license renewals that we have in the backlog and are clearing out.

And those licensees that are going to be subject to conversion in the future, you know, the issue about lead test elements and how they fit in with current tech specs or tech specs that need to be changed, you know, that's an issue we will look at and address when we get there.

Any other questions, comments?

At one point I was making a Slide 21 and it was moving forward discussing the detailed focused review part of the ISG, but then I sort of -- one thing, I was wondering if we'd have enough time to do that, and you know, if there's really a desire to go into that detail. However, for folks that have read the focused review guidance and have questions on it, I'm, you know, more than happy to entertain those questions and tell you what the thinking was as we put that together.

Any and all questions, comments?

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MR. REESE: I guess I keep going back to the level of effort, you know, from the licensee --Sorry -- from a licensee's point of view Steve Reese. going through this recently, that even when we got an RAI on anything but four and 13, it was essentially a everything outside of four and 13 there's a analysis description, and SO there's no really. You've just got to go out and describe it. So maybe we didn't describe it in the way that somebody really appreciates it or that wasn't clear enough, fine. can redescribe it.

I guess what I'm saying is everything outside of four and 13 took about five minutes to answer because you can go look it up or you can just describe it better.

MR. ADAMS: But my answer is it took you five minutes to answer because of the quality of your application. There are some other -- the quality of applications differ and the amount of depth we have to go into in any area differs, and sometimes it's just that, a description, but sometimes it can end up being, you know, significant.

MR. REESE: Well, I guess I'm struggling because almost everything in there, even in 1537, is just a look-up, right? Look-up or describe. There's

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really no one else that's involved, with a couple of exceptions, but almost all the time and effort was on four and especially 13.

MR. ADAMS: Yeah, that's where the bulk of the analysis will be.

MR. REESE: And certainly tech specs in the end, but that's something you've got to do regardless.

MR. ADAMS: And there's a lot of -- some of that is description because it was looked at at some point in the past. You know, I'm not looking at circuit diagrams of your instrumentation and control system, but at some point in the past, you know, the NRC looked at that in depth, just like when the licensee converted from analog to digital. You know, the NRC dug into some depth or the NRC has looked at your 5059 over the years.

So you know, there is analysis that's been looked at, and it takes many different forms, but I agree with you that most of the analysis is on four 13, and the changes of having significant and questions are more likely in those chapters, although I can tell you from experience there's sometimes questions. It's not unusual to have questions come up the other chapters that can be significant

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1 questions because something is missing or it may be a 2 description, but we don't do a -- you know, we go and 3 a calculation and can't figure out, 4 example, how a licensee calculates doses. We can't 5 figure out, you know, what would happen if a pool would leak. 6 7 So you know, sometimes there's analyses on these things. 8 9 MR. REESE: Right. 10 Any other questions, comments? MR. ADAMS: 11 MS. BROCK: I'd like to add that we're 12 going to be putting the interim staff guidance or the draft interim staff quidance out in the Federal 13 14 Register for, I think, a 30-day comment period. So we are interested in any comments you had and we want to 15 get it out in the public in a proper manner. 16 17 So you'll be seeing the Federal Register notice pretty soon, but you have with this meeting 18 exactly what will be in the Federal Register. 19 How much time do you think 20 MR. WEISS: 21 that will save in your review, using interim guidance? 22 MS. BROCK: Originally, before we started 23 with the focused review, we were thinking we'd be 24 doing reviews out to 2012 and now we're looking at

completing these reviews within 2010.

25

So I'd say

66 1 we're really catching up on some time with this 2 streamline process. 3 MR. ADAMS: And I think, you know, from 4 the past meetings we have, I think we discussed what 5 our challenges were, you know, our global challenges were in some detail. So you know, we still live with 6 7 we're those challenges, and addressing those 8 challenges. Anything else? Anybody out in Webinar 9 10

land, any other questions?

(No response.)

MR. ADAMS: Well, with that I guess I'll call it by saying first I want to thank you for coming and thank you for tuning in because I know you folks are busy folks, and we appreciate your time.

what we're doing here, is verv Getting the backlog reduced is very important to us. important to us. Doing it in a way that allows you to continue to do your primary missions of education and research is very important to us.

As we move forward we will work with you. We will explain as much as we need to explain. will listen to you, and we will make sure we have the resources available on our side to make this success.

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1	We ask in return if you're a licensee that
2	you work with us and that, you know, you realize we
3	are probably going to ask some questions, you know,
4	that will need some effort from you, and we ask that
5	you plan to give us that effort over the next 14
6	months.
7	And with that I'll sign off unless there
8	are any last questions or comments.
9	MS. BROCK: Okay.
10	MR. ADAMS: Thank you.
11	(Whereupon, at 2:32 p.m., the workshop was
12	concluded.)
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