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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

(ACRS)

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REGULATORY POLICIES & PRACTICES SUBCOMMITTEE

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OPEN SESSION

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FRIDAY

SEPTEMBER 20, 2019

+ + + + +

ROCKVILLE, MARYLAND

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The Subcommittee met at the Nuclear
Regulatory Commission, Two White Flint North, Room
T2B10, 11545 Rockville Pike, at 8:30 a.m., Matthew W.
Sunseri, Chair, presiding.

1 COMMITTEE MEMBERS:

2 MATTHEW SUNSERI, Chair

3 DENNIS C. BLEY, Member

4 CHARLES H. BROWN, JR., Member

5 MICHAEL L. CORRADINI, Member*

6 VESNA B. DIMITRIJEVIC, Member

7 WALTER KIRCHNER, Member*

8 DAVID PETTI, Member*

9 HAROLD B. RAY, Member

10 JOY L. REMPE, Member

11 PETER RICCARDELLA, Member*

12

13 DESIGNATED FEDERAL OFFICIAL:

14 QUYNH NGUYEN

15

16 ALSO PRESENT:

17 ANNA BRADFORD, NRO

18 JOSEPH COLACCINO, NRO

19 CAROLYN LAURON, NRO

20 SCOTT MOORE, Executive Director, ACRS

21 JAMES O'DRISCOLL, NMSS

22

23 *Present via telephone

24

25

P R O C E E D I N G S

8:31 a.m.

1
2
3 CHAIR SUNSERI: Good morning. The meeting
4 will now come to order. This is a meeting of the
5 regulatory policies and practices subcommittee of the
6 advisory committee on reactor safeguards. My name is
7 Matt Sunseri, chairman of the subcommittee meeting.

8 ACRS members in the room today are Harold
9 Ray, Joy Rempe, Charlie Brown, Vesna Dimitrijevic, and
10 members on the phone are Pete Riccardella, Michael
11 Corradini, Dave Petti, and Walt Kirchner. Did I miss
12 anybody on the phone? Got them all? All right.
13 Quyhn Nguyen is the ACRS staff member designated
14 official for this meeting.

15 The subcommittee will hear from
16 representatives of the staff regarding lessons learned
17 on 10 CFR Part 50 and 52 activities. I'm going to
18 depart from the script a little bit here. This
19 meeting was called at our request.

20 The motivation for that is we have several
21 members that have quite a bit of experience with
22 implementing Part 50 and Part 52. Because this
23 rulemaking is so far in our future, and because of the
24 tenure of some of these members, they won't be around
25 when the opportunity comes for ACRS to be in process

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1 review of this potential rule change or this
2 rulemaking. We wanted to have an opportunity for them
3 to share some of their experiences and wisdom with the
4 staff as you consider the changes that you want to
5 make in the proposed rulemaking.

6 That's the motivation for today's meeting,
7 as opposed to a normal meeting, where we're going to
8 be reviewing and providing opinions in preparation for
9 a full committee review. There will not be -- we are
10 not planning a full committee review following this
11 meeting.

12 What you will hear today is opinions and
13 ideas from individual members and not representative
14 of ACRS' position on anything. I want to be clear on
15 that. The ACRS was established by statute and is
16 governed by the Federal Advisory Committee Act. This
17 means that our committee can only speak through its
18 published report.

19 The parties who wish to provide comments
20 can contact our office requesting time. That said, we
21 set a time for spur of the moment comments from
22 members of the public attending or listening to our
23 meeting. Written comments are also welcome. The ACRS
24 section of the U.S. NRC public website provides our
25 charter, bylaws, letters, and full transcripts of full

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1 and subcommittee meetings, including slides presented
2 at this meeting. As of the start of this meeting, we
3 have received no written comments or requests for time
4 from members of the public to make any statements
5 today. We have a bridge line established for
6 interested members that would like to listen in.

7 To preclude interruption of the meeting,
8 the phone bridge will be placed in a listen-in mode
9 during the presentation and the committee discussion.
10 We will unmute the bridge line at a designated time to
11 afford the public an opportunity to make comments or
12 provide statements.

13 At this time, I ask that all the meeting
14 attendees and participants silence their cell phones
15 or other electronic devices that make audible noises.
16 A transcript of the meeting is being kept and will be
17 made available. Therefore, we request participants in
18 this meeting to use the microphones located throughout
19 the meeting room when addressing the subcommittee.

20 Participants should first identify
21 themselves and speak with sufficient clarity and
22 volume so that they may be readily heard. Just as a
23 lesson learned, make sure that the green light on your
24 microphone is on when you're speaking, and then turn
25 it off when you're not because of the feedback. In

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1 particular, now that we're using remote tools for
2 members to listen in, the feedback can get pretty
3 annoying. We will now proceed with the meeting. I
4 call upon Anna Bradford, senior manager at NRO, for
5 any remarks.

6 MS. BRADFORD: Thank you. As you
7 mentioned, my name is Anna Bradford. I'm the acting
8 director of the division of licensing, siting, and
9 environmental analysis in the office of new reactors.
10 Again, as you mentioned, the purpose of today's
11 meeting was for us to come and tell you where we are
12 on a rulemaking that will affect 10 CFR Part 52 and
13 Part 50.

14 The idea is to align those processes for
15 new reactor applications, as well as incorporate some
16 lessons learned over our years of using Part 52. We
17 know that the committee has been very involved with a
18 lot of implementation of Part 52 and Part 50, between
19 your reviews and design certifications and early site
20 permits and combined licenses.

21 We know that you probably had a lot of
22 thoughts, maybe, on Part 52 and what could be improved
23 or what we need to remove or clarify, anything like
24 that. That was the purpose of today's meeting. The
25 input that we get, we'll consider it when we are

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1 developing the regulatory basis, which is the next
2 step, as you'll hear. With that, I will turn it over
3 to the project managers to give you more details.
4 Thank you.

5 CHAIR SUNSERI: Thank you. James, floor
6 is yours.

7 MR. O'DRISCOLL: Good morning. I'm Jim
8 O'Driscoll, the lead rulemaking project manager on
9 this activity. I am in the office of nuclear material
10 safety and safeguards, division of rulemaking.
11 Joining me today is Carolyn Lauron, senior project
12 manager in the NRC's Office of New Reactors, Division
13 of Licensing, Siting, and Environmental Analysis.

14 Also joining me today is Joe Colaccino,
15 author of the SECY Paper 19-0084. We also have other
16 NRC staff in the audience, as well. We'll have a
17 brief NRC staff presentation, where we'll cover the
18 NRC staff's scoping activities and items chosen for
19 consideration in the rulemaking.

20 Then we will hand it over to the HRS
21 members to hear their views on this activity. Please
22 note that the list of ADAMS section numbers to the
23 documents referenced in the NRC staff's presentation
24 can be found at the end of the staff's slide
25 presentation. Also, please be careful not to discuss

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1 any safeguard security-related classified or
2 proprietary information during the meeting. Although
3 we intend to have an open dialogue, please note that
4 the NRC will not make any regulatory commitments
5 during the meeting.

6 CHAIR SUNSERI: Jim, while you're turning
7 the slides here, I just want, for the record, to
8 acknowledge that Dennis Bley has joined the meeting.
9 Thank you.

10 MR. O'DRISCOLL: Okay, sure. As Anna
11 stated, the purpose of today's meeting is to receive
12 the ACRS subcommittee's observations on implementation
13 of 10 CFR Part 52 process, based on the subcommittee's
14 perspectives from its reviews of early site permits,
15 design certification, and combined license
16 applications.

17 We hope this interaction will help the
18 staff understand your views on this rulemaking
19 activity. Your input will help us develop a
20 regulatory basis for the rule that includes your
21 perspective. We expect today's meeting will help the
22 staff develop a high-quality inclusive document.
23 We'll take this information, perspectives, and
24 questions we'll hear today into consideration when
25 developing the regulatory basis. We plan to hold

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1 additional public meetings, as needed.

2 CHAIR SUNSERI: While you're taking a
3 breath again, I would say we appreciate the remarks
4 about security and, I'll call it OUO information.
5 Help keep us honest on that. We take no offense to
6 saying no, we can't go there.

7 MR. O'DRISCOLL: Okay, will do. Purpose
8 of the rulemaking. The purpose of the rulemaking is
9 to implement the commission's direction on
10 SRM-SECY-15-0002. The goal of the rulemaking is to
11 better align the Part 50 and Part 52 licensing
12 processes, such that equivalent designs submitted for
13 NRC review under each process are assessed against
14 consistent technical standards that yield outcomes
15 with equivalent demonstrations of adequate safety,
16 security, and environmental protection.

17 In SECY-15-0002, issued in January 8,
18 2015, the staff made several recommendations to the
19 commission regarding policy and regulatory updates to
20 ensure consistency in new reactor licensing reviews.
21 The staff also made recommendations to address
22 staff-identified lessons learned obtained through the
23 licensing reviews completed to date. These changes
24 are intended to improve clarity and reduce unnecessary
25 burden on applicants and staff. The four alignment

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1 items are more fully described in Enclosure 1 of
2 SECY-15-0002. Examples of lessons learned, as they
3 were at the time of the SECY's issuance, are described
4 in Enclosure 2 of that SECY. As well as these, the
5 staff has addressed or intends to address editorial
6 and administrative changes, as well.

7 In addition, the staff is considering
8 various transformational changes. In the context of
9 this activity, transformational changes means a
10 significant new idea or revised approach to an issue
11 that has a potential to significantly reduce burden on
12 the applicant and staff, while not compromising
13 safety.

14 The project was deliberately budgeted to
15 start in fiscal year '19. The staff commenced work
16 last October. The staff's first task was to clearly
17 define the scope of the regulatory basis for the
18 rulemaking. From the staff's outreach efforts inside
19 and outside the NRC, the staff collected a large
20 number of items to consider for inclusion.

21 On January 15th of this year, the staff
22 held a Category 3 public meeting to request feedback
23 from external stakeholders. NEI arranged for a panel
24 of industry representatives to attend. Using input
25 from the staff, the stakeholders -- the staff aligned

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1 on scope in July 11th. In late August, the staff
2 issued information, SECY Paper 19-0084, which provided
3 information to the commission on the status and scope
4 of the regulatory basis. The staff requested input on
5 --

6 MEMBER RAY: Just a second. Let me
7 interrupt. Matt, do you want to go all the way to the
8 end, and then come back?

9 CHAIR SUNSERI: No, we talked to him
10 before. We can ask some questions along the way, make
11 it a little more conversational.

12 MEMBER RAY: In going through what you've
13 said so far, the material you've covered so far, I
14 haven't seen anything that indicates that one of the
15 -- that the circumstances recognized that we were
16 talking about first of a kind experience. One of the
17 reasons for alignment that's given in one of these
18 documents you listed up there is that potential
19 applicants are thinking that Part 50 might be best for
20 first of a kind.

21 Certainly, although the -- a reason for
22 Part 52 being created is given as better control over
23 standardization, in reality, there was another reason,
24 at least, which was to make available a one-step
25 process, often referred to as one step. But at the

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1 time, anyway, it was conceived -- and I can say this
2 from a different perspective than I have now, which
3 was in the industry at the time that it was developed,
4 the idea of one step emerged from the post-TMI period
5 for people like myself, who had a CP & OL at the time.

6 The idea, therefore, was to make it
7 possible to have a one-step licensing process, but at
8 that time, the people I was involved with never
9 imagined that for first of a kind. To get back to my
10 intended question, is there, in any of this -- I
11 haven't seen it if there is -- the idea that maybe
12 first of a kind wasn't intended to be used for a
13 design certification?

14 Standard design approval exists under Part
15 52, and then, of course, you have the Part 50 process,
16 which isn't usable by a vendor who doesn't have a
17 customer, so standard design approval is the Part 52
18 alternative to design certification and was imagined,
19 then, to be applicable to a first-of-a-kind design to
20 avoid having to detail the whole plant design for
21 certification purposes.

22 That's a long-winded premise. Let me boil
23 it down just -- to what extent has the option of
24 saying wait, we ought not to be trying to make design
25 certification fit first-of-a-kind designs that have

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1 never been built, and don't even have a plant
2 customer, but rather, we should use standard design
3 approval, for example? To what extent is that part of
4 the discussion? I don't see it.

5 MS. BRADFORD: Do you want to take it, or
6 do you want me to take that, Jim?

7 MR. O'DRISCOLL: Go ahead.

8 MS. BRADFORD: It's an interesting
9 question, but more of a philosophical kind of
10 question. We did consider -- we didn't want to go to
11 the point where we were starting with a blank piece of
12 paper for Part 52. We kind of wanted to work within
13 the bounds that had been set up.

14 The SDAs are available. Applicants can
15 use them. There's some applicants now that are
16 considering standard design approvals, when I say
17 SDAs. You can also use a custom COL under Part 52.
18 I do want to point that out.

19 I know that there are some advanced
20 reactors that don't want to go the design
21 certification route. It will be a first of a kind, so
22 in their mind, they're going to do a custom COL. A
23 custom COL does not refer to an approved design
24 certification. There are some flexibilities within
25 there that have been really explored for advanced

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1 reactors and laid out in, I think it's called the
2 regulatory roadmap.

3 MEMBER RAY: Would you consider a custom
4 COL a one-step licensing process?

5 MS. BRADFORD: I would.

6 MEMBER RAY: We're going to come back to
7 this issue of one step versus two step --

8 MS. BRADFORD: I would consider --

9 (Simultaneous Speaking)

10 MEMBER RAY: -- later in the discussion,
11 but I just wondered if that was the case.

12 MS. BRADFORD: Yes, I would.

13 MEMBER REMPE: There's another thing, when
14 I reviewing this material, that came up. We discussed
15 amongst ourselves. You used the term standard design
16 approval. If you go back and look through things,
17 really, there used to be final design approvals.
18 There aren't many SDAs. Out of curiosity, when did
19 the term change from FDA to SDA, and what happened?
20 Because I --

21 (Simultaneous Speaking)

22 MS. BRADFORD: If I remember right, it was
23 during the last revision of Part 50, which was about
24 2007, something like that. There used to be an
25 Appendix O to Part 50, which talked about FDAs. There

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1 was PDAs, which was preliminary design approval.
2 There was several different terms, meaning different
3 things. At that time, the commission, for whatever
4 reason, decided they wanted to change the approach and
5 they revised -- they wanted some flexibility, but
6 maybe not the FDA, the PDA and all that. That's when
7 the SDA went into effect. I think it was 2006-2007,
8 something like that.

9 MEMBER REMPE: Thank you.

10 MEMBER RAY: To put a pin on what you just
11 said, please, as you look at input now to this
12 rulemaking, and as you look at experience and lessons
13 learned, are there things that you say wait a minute,
14 that's something that we would treat differently
15 because it is a consequence of being first of a kind,
16 and we're not going to change design certification to
17 make it -- facilitate the ease of certifying a
18 first-of-a-kind design, and then changing it later?
19 We'll have more discussion about that later, I know,
20 but has that ever been discussed or considered?
21 Because I don't see it in any of the material.

22 MS. BRADFORD: I can't say that we started
23 with the thought of how can we make first of a kind
24 licensing easier. I don't know that was one of our
25 thoughts when we went into what changes do we want to

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1 make to Part 52. But if you have comments along those
2 lines on what you think we should consider, we would
3 be happy to hear those.

4 MEMBER RAY: Okay, we'll put that off
5 until later. Certainly, lots of folks have observed
6 first of a kind are unique when it comes to
7 certification. As I say, at least from the
8 perspective of where I sat 20 years ago, first of a
9 kind wouldn't have been thought possible to certify.
10 That's just history. Anyway, thank you for the
11 diversion. Go ahead.

12 MR. O'DRISCOLL: To continue on Slide 7,
13 this is on background. The staff requested input on
14 the scope of the regulatory basis from a wide variety
15 of stakeholders, including the general public,
16 industry organizations and non-governmental
17 organizations. In addition, the staff solicited input
18 internally.

19 In all, about 250 separate scoping items
20 were received. Staff initially screened each item to
21 determine if it aligned with the overall purpose of
22 the rulemaking. The item was screened in if it met at
23 least one of the following criteria. It addressed
24 alignment or requirements for the contents of
25 applications submitted under Part 50 or Part 52, or it

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1 addressed a lessons learned from new reactor licensing
2 activities, or it was a potential transformational
3 change that could significantly improve the licensing
4 process or the change would clarify the regulations or
5 reduce unnecessary burden and would not adversely
6 impact other requirements.

7 The staff did a second screening of the
8 items to obtain a manageable list of high-impact
9 items. An item was screened out if it would provide
10 neither a significant safety benefit or a clear burden
11 reduction on industry or staff. Items were also
12 screened out if they could be addressed through more
13 appropriate processes.

14 If the item was judged to be an
15 administrative correction, it was transferred to the
16 agency's periodic administrative corrections
17 rulemaking. If the item could be addressed through
18 guidance, alone, without any changes to regulation, it
19 was screened out.

20 In July, the staff aligned on the scope of
21 the regulatory basis. The current scope consists of
22 the four alignment items discussed in Pages 4 and 5 of
23 SECY-19-0084. The scope also includes 52 lessons
24 learned items listed in the enclosure to SECY-19-0084.
25 Four of these are considered transformational in

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1 nature. Eight administrative corrections identified
2 during the final screening process were transferred to
3 NRC's 2019 administrative corrections rulemaking.
4 I'll now hand it over to Carolyn Lauron of NRO's
5 division of licensing, siting, and environmental
6 analysis, who will provide a bit more detail on the
7 items.

8 MS. LAURON: Before I begin, I want to
9 point out an error on the slide for Item Bravo. It
10 should read develop, maintain, and upgrade a
11 plant-specific PRA. The first time submit appears in
12 that item should be deleted.

13 PARTICIPANT: Delete submit.

14 CHAIR SUNSERI: Which one is that? Oh,
15 I've got the wrong slide, I think.

16 MS. LAURON: Item Bravo.

17 CHAIR SUNSERI: Which one is in error?
18 Where's the error?

19 MS. LAURON: Item Bravo, develop, submit
20 and maintain and upgrade a plant-specific PRA. It
21 should state develop, maintain, and upgrade a
22 plant-specific PRA.

23 CHAIR SUNSERI: Delete the first submit,
24 I mean the submit?

25 MS. LAURON: Correct. Submit appears

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1 twice in that item, on the same line.

2 CHAIR SUNSERI: Oh, okay.

3 MS. LAURON: Right.

4 MEMBER BROWN: Thank you.

5 MS. LAURON: You're welcome. In
6 SECY-2015, the 2015 SECY, the staff discussed the
7 following four alignment items, which the commission
8 approved in its SRM. To apply the policy statement on
9 severe reactor accidents to new Part 50 applications
10 consistent with the Part 52 applications, which will
11 require construction permit and operating license
12 applicants to submit information on design features
13 for prevention and mitigation of severe accidents.

14 The second item was to modify the
15 licensing process to require all new reactor
16 applications to develop, maintain, and upgrade
17 plant-specific probabilistic risk assessments, or
18 PRAs, to submit a description of the PRA and its
19 results, and to maintain and upgrade the PRA
20 throughout the duration of the operating license.

21 The third item is to modify the Part 50
22 requirements to provide prospective applicants the
23 same exceptions to post-Three Mile Island requirements
24 given under Part 52, and finally, to modify the Part
25 50 licensing process to require a description and

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1 analysis of the fire protection design features and
2 plans.

3 MEMBER REMPE: Oh, sorry. Watch out for
4 the papers.

5 PARTICIPANT: Leave it on, just don't --

6 MEMBER REMPE: Go back to the prior slide,
7 please. Just for my memory, could you remind me what
8 the exceptions are for the 52 in Item C?

9 MR. O'DRISCOLL: There were some
10 exceptions in that because I think 5044 -- we're
11 talking about TMI stuff, right?

12 MEMBER REMPE: Right.

13 MR. O'DRISCOLL: That's hydrogen control.
14 We issued a risk-informed rule in, I think, 2003 time
15 frame. For new reactors, we were telling folks to
16 follow that piece. We were accepting the hydrogen
17 control items that were listed in 34(f). That was an
18 exception. That's just one of them that I can think
19 of.

20 MEMBER REMPE: Thank you.

21 MS. LAURON: For the lessons learned
22 items, the staff is also considering revising the
23 regulations as described in the enclosure to
24 SECY-19-0084 in the following categories. PRA
25 requirements as it relates to risk-informed

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1 initiatives, operator licensing, based on experiences
2 with Vogtle, security, based on recent experiences and
3 applicability of requirements before fuel load,
4 emergency planning to eliminate duplicative
5 requirements, revise application of requirements, and
6 provide clarifications, licensing process under Part
7 52, which includes several topics, design
8 certification renewal and expiration date, aligning
9 the design certification, early site permit and
10 limited work authorization processes with requirements
11 in 10 CFR 50.59, design scope and standardization,
12 standard design approval, and content of applications,
13 environmental review to allow for an environmental
14 assessment for COL applicant and to submit the COL
15 application in two parts, separating the environmental
16 report from seismic, siting, financial, and emergency
17 planning information, applicability of other processes
18 to Part 52 to clarify the regulations that define
19 applicability of other requirements to early site
20 permits, design certification, and combined license
21 applications, and finally, miscellaneous topics to
22 remove outdated requirements and to clarify existing
23 requirements. As noted in the recent SECY, some of
24 the changes under consideration are transformational.
25 These changes have the potential to significantly

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1 reduce unnecessary burden on the applicant and staff.
2 For example, modify the design certification renewal
3 requirements and expiration date would preserve the
4 ability of an applicant to reference a certified
5 design until the applicant is ready to submit its
6 application.

7 In another example, aligning the design
8 certification change process with 10 CFR 50.59 and
9 applying the definitions for tier information
10 described in SECY-19-0034, would eliminate challenges
11 for changes during construction. I'll hand it back to
12 Jim.

13 MEMBER RAY: That statement you last said,
14 eliminate challenges, right now, there's what's called
15 a, quote, 50.59 like process that applies to Tier 2
16 information. At least I understand what's been said
17 up until now, that wouldn't change. In other words,
18 you have that ability today to make changes under
19 50.59 like criteria. It would just be extended to
20 other things than just Tier 2 information. Is that
21 correct?

22 MS. LAURON: I believe it would allow the
23 -- under consideration, it would allow changes that
24 would not significantly affect the safety of the
25 change. Joe, is that correct?

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1 MEMBER RAY: 50.59 has a bunch of
2 criteria. You've got to go through six or eight of
3 them, whatever it is, and decide if a change is
4 required. If not -- I mean if an amendment's
5 required. If not, then you go ahead and make the
6 change.

7 You have to then update it in the FSAR
8 when the FSAR is submitted or updated every two years.
9 But when you said eliminate, it just seemed like a
10 very strong consequence of extending the applicability
11 of whatever it is you're going to ultimately do
12 because it already exists.

13 I'm just asking the question, at this
14 point, to try and get you to elaborate on is it
15 something different than what exists today, or is it
16 just being extended to other things? What are you
17 referring to?

18 MS. BRADFORD: What we were thinking about
19 there was, like you said, there's a 50.59 process that
20 has a series of steps or considerations, and then
21 there's the 50.59 like process, which has additional
22 steps or considerations. You could say it's more
23 restrictive than the 50.59 process. What we wanted to
24 do was go back and look and see has that served us
25 well? Is it a good thing for it to be more

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1 restrictive? Are there reasons for it to be more
2 restrictive? Should we make it even more restrictive
3 or less restrictive, given our experience with
4 construction in Part 52. It was just to look at it
5 and see if we're in the right place with the 50.59
6 like process.

7 MEMBER RAY: At some point -- and this
8 probably isn't the best time to try and do it -- there
9 was elaboration on what I think you're referring to
10 now in the January public meeting, January 2019 public
11 meeting, talking about the notion that the licensee
12 would be at risk for changes that would be made.

13 We'll come back to that later. I just was
14 reacting to what she said about eliminate challenges
15 because right now, we have a process. Changing the
16 criteria or making it applicable to other things, I
17 understand, but I don't think it goes so far as to
18 eliminate --

19 MS. BRADFORD: Decrease challenges, maybe
20 not eliminate challenges. You're right that it's a
21 very strong word, but we can come back to that if
22 you'd like.

23 MEMBER BLEY: I've got a couple questions
24 on this one. One's kind of simple. Transformation
25 has become a special word around here. You're using

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1 it in its more traditional sense here, or do you think
2 it's transforming the regulatory process for the
3 commission?

4 MR. O'DRISCOLL: We're using it in the
5 spirit of the efforts the agency is trying to do.

6 MEMBER BLEY: You are? Okay.

7 MR. O'DRISCOLL: We're trying to make
8 ourselves a better regulator using the
9 transformational philosophies that were the culture
10 that's being put out.

11 MEMBER BLEY: It's kind of hard to see the
12 transformational nature of some of this to me. The
13 last one on consider reducing the requirements for
14 standardization, we already have a process where a COL
15 applicant can take exceptions or make changes to the
16 standard design. What are you thinking about here?

17 MR. O'DRISCOLL: I think, just going back
18 to what we were saying before, a little bit earlier,
19 was that we just want to look at what standardization
20 and our emphasis on standardization when we put out
21 the Part 52 process and how well that's actually --
22 how important that is compared to its impact on
23 licensees when they try to make changes. It's
24 something that we want to just examine again and see
25 if we maybe can de-emphasize the emphasis on

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1 standardization in the change process, such that that
2 would allow licensees to better make changes.

3 MEMBER BLEY: Okay. We haven't had
4 anybody really get all the way through this thing yet,
5 but we, here, have seen a number of COL applications.
6 From the review point, if you accept the standard
7 design, it flies through a whole lot easier. I'm not
8 even sure what you're thinking about. It seems almost
9 a tautology that works pretty well, even though we
10 never built a plant.

11 MEMBER BROWN: There are two plants being
12 built based on the design certifications we
13 participated in, and there's a COL building the plans.
14 I don't remember any --

15 (Simultaneous Speaking)

16 MEMBER BLEY: Changes have come in. I
17 know they were the lead plant.

18 MS. BRADFORD: I think one practical
19 effect of this is the LARs. Vogtle is building the
20 two units right now, as you mentioned. They've
21 submitted, I think we're at 164 license amendment
22 requests. They have changed that design. When
23 Westinghouse comes in to renew that design
24 certification, it's expected that they'll take all
25 those LARs and put those into the new design. Because

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1 when it was constructed, they learned that these
2 changes needed to be made. Reducing requirements for
3 standardization, one thing it makes me think about is
4 for every LAR, if you look at our safety evaluation,
5 there's a section that talks about what's the effect
6 on standardization, and does the effect on
7 standardization, is it outweighed by the benefit that
8 you're getting by making this change.

9 Every LAR there's a paragraph or two that
10 talks about that. Is that worthwhile? We almost
11 always say yes, they should be allowed to make this
12 change, and it's not going to adversely affect
13 standardization or the impact of standardization on
14 safety. Is that the place where we want to be?
15 That's what we wanted to stop and think about.

16 MEMBER BROWN: Is there a difference
17 between how you treat a LAR for the new design as
18 opposed to how you would treat or require a LAR for an
19 existing plant?

20 MS. BRADFORD: An operating plant, you
21 mean?

22 MEMBER BROWN: An operating plant --
23 (Simultaneous Speaking)

24 MS. BRADFORD: The operating plant, I
25 would --

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1 MEMBER BROWN: We're dealing with an
2 operating plant issue right now, in terms of the
3 digital I&C world. That pretty much governed -- the
4 argument on that is 50.59 and the eight requirements
5 or the eight items within the Item C. All I know is
6 we approved -- we reviewed that final design.

7 We gave, whatever, the Betty Crocker Good
8 Housekeeping Seal of Approval based on our letters,
9 but none of the LARs that I'm aware of have raised to
10 the level of massive change, where they had to be
11 re-presented to the committee. I presume -- did they
12 do that under 50.59, or was there some other change
13 process part of Part 52 that they were allowed to do
14 that? I've only seen Part 52.

15 Twelve years, I've never seen a Part 50
16 thing. I've never seen a PDA, an FDA, or an SDA,
17 standard design application. It's only the design
18 certs for the new design plants that we've gone
19 through and one modification to Diablo Canyon.

20 MS. BRADFORD: One interesting point that
21 may be flying under your radar is that, for example,
22 the APR1400, when we finished the design
23 certification, we also simultaneously issued an SDA.
24 You guys actually have seen an SDA; it was just in
25 parallel with the design certification. When we

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1 finished the technical review, we sent out a letter --
2 it was only about two pages -- saying hey, we finished
3 the technical review. We've gone through the ACRS.
4 We've done all these things. Here's your standard
5 design approval. Because they want that without
6 having to wait for the year of the rulemaking for the
7 design cert. I'll just point that out. In terms of
8 the digital I&C, I haven't been following that
9 particularly.

10 MEMBER BROWN: That's fine. I'm just
11 trying to use that as an illustration of how -- a
12 difference of how you go about doing things. That's
13 all I was trying to understand. I never worked in the
14 commercial world before I came here 12 years ago. My
15 experience is rather limited. I listen to Harold and
16 a few people who have operated plants fairly carefully
17 to try to understand what the processes are.

18 MS. BRADFORD: The current operating
19 directors aren't licensed under Part 52. They're in
20 Part 50.

21 MEMBER BROWN: Right, I remember that.

22 MS. BRADFORD: They don't really have to
23 require standardization the way the Part 52 plants do.

24 MEMBER BROWN: That part I do understand.
25 Okay, I'll keep struggling. That's why I'm here

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1 today.

2 MEMBER RAY: I don't mean to extend this,
3 other than I need to, in this sense. Again, the word
4 standardization is being used. It depends on what one
5 intends or means by standardization. What I think of
6 is one-step licensing of a certified design.

7 That process -- in other words, I don't
8 need to come back and get your agreement that I've --
9 the changes I've made are acceptable because it's a
10 one-step licensing process. Whereas, if I get a
11 construction permit, I need to then get an operating
12 license and tell you how I actually built the thing.

13 It's the absence of that second step in
14 the presence of what I think you're calling
15 standardization that is of greatest interest from my
16 standpoint. In other words, are we -- again, I'll go
17 back to the language used in the January meeting about
18 being at risk, changes at risk would be subject to
19 control.

20 The changes -- by changes at risk, I
21 assume you've made a change. You think it meets the
22 criteria for making a change without amendment, but
23 I'm at risk now for having made that change. How is
24 that risk resolved in the way that -- under Part 50,
25 it's resolved at the operating license stage. I've

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1 made changes from the PSAR. It's in the FSAR. I'm
2 coming in and asking for an operating license. We've
3 done it over 100 times and people have gotten their
4 license. But now I don't have that second step
5 anymore. One of the things that, at least, I'm here
6 to try and figure out is what is that final step?

7 There aren't ITAAC that cover the issues.
8 In the wording here in January, it appears that the
9 licensee's -- in fact, it's called quality control
10 program will be used to resolve the uncertainty. I'm
11 just not clear, at all. The word uncertainty is used
12 -- or at risk, excuse me, is used, but I'm not sure
13 how the risk is resolved. With that, we probably
14 should go ahead and come back for more discussion
15 later.

16 MEMBER BROWN: No, I still want to --
17 based on your comment and Anna's comment -- let me --

18 MS. BRADFORD: No, go ahead.

19 MEMBER BROWN: I'm going to throw out --
20 this is a hypothetical. APR1400, as you said, has
21 been approved and your SDA has been sent out. They
22 don't have a construction permit. They don't have a
23 licensee, so there's no COLs, etc., to go along with
24 it. I'm trying to echo Harold's words here. If they
25 make changes to that design in the interim before a

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1 vendor, utility, licensee, whoever says I want to
2 build one of those, are they supposed to come in with
3 those, or do they just make those changes, as Harold
4 says, at their risk, and then when they get a person
5 who wants to use that plant design and submits their,
6 I guess, ESP, and then their COL, and gets a
7 construction permit, is that when those get addressed?

8 MS. BRADFORD: You could do either. KHNP
9 could decide --

10 MEMBER BROWN: So like he said, it can be
11 -- APR1400, KHNP could say okay, we're just not going
12 to do anything until we have somebody ready to build
13 the plant, and then we'll go argue whether we need
14 LARs under some change venue, whether it be -- is that
15 a 50.59 thing, then, or is it --

16 MS. BRADFORD: 50.59 like.

17 MEMBER BROWN: Where is 50.59 like
18 defined?

19 MS. BRADFORD: It's in each appendix for
20 each design cert.

21 (Simultaneous Speaking.)

22 MS. BRADFORD: Each design certification
23 is appendix of Part 52. You look in there and it lays
24 out the change process.

25 (Simultaneous Speaking)

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1 MEMBER RAY: Let me just -- Charlie, let
2 me just read the words here --

3 (Simultaneous Speaking.)

4 MEMBER RAY: -- because it isn't -- before
5 construction. In the January 2019 document I'm
6 looking at here, it says a recommendation is to modify
7 the NRC interpretation to allow at-risk construction
8 pending approval of an LAR or the processing of a
9 50.59 like change. It's those approvals or whatever
10 acceptance of the processing of the 50.59 like change
11 that I think we want to get a better understanding of.

12 MS. BRADFORD: I can explain that. Now
13 that you read that sentence, I understand.

14 MEMBER BROWN: Where's the sentence from
15 again?

16 (Simultaneous Speaking.)

17 PARTICIPANT: It's the public meeting in
18 2019.

19 MEMBER BROWN: It's in that list of ten
20 pages of comments.

21 PARTICIPANT: Go ahead.

22 MS. BRADFORD: This is the difference
23 between Part 50 and Part 52. Under Part 52, the way
24 we've interpreted the language is that when you're
25 constructing the site -- when Southern is constructing

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1 the Vogtle units, if they realize they need to make a
2 change -- the design cert says something. They
3 realize they can't do it, or they don't want to do it,
4 or it's too expensive to do it, and they want to do it
5 a different way, they have to submit a LAR to us.

6 The way we interpret it right now is you
7 pretty much cannot do that change until we have
8 approved the LAR, unless you request a PAR. There's
9 a couple little wrinkles to it, but in general, you
10 can't actually make the change until we've approved
11 the LAR. That's different than operating reactors.
12 They can make the change.

13 What they're saying is can you please
14 allow us, when we're constructing, to go ahead and
15 make that change before the NRC has approved that LAR.
16 If, then, the NRC says hey, what you've proposed here,
17 we can't allow it; we're going to deny it, they'll
18 have to go back and put it back to the original
19 licensing basis. That's the at risk part.

20 MEMBER RAY: You're exactly right. What
21 it said in the comment that was the recommendation for
22 was NRC's position that as soon as a COL is issued,
23 there is an approved licensing basis, and the
24 licensee, therefore, needs to be in compliance at all
25 times, regardless of whether there's any impact to

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1 public health and safety. Clearly, that's something
2 that's capable -- and needs to be revised. On the
3 other hand, though, it is a certified design. The
4 difference between a certified design and a Part 50
5 process that may be preceded by an SDA is that there
6 isn't any subsequent review.

7 The blockage where you -- I don't have any
8 problem with letting people proceed at risk. The only
9 issue is is there going to be a leap ahead? Is there
10 going to be an accumulation of all the changes that
11 were made that has to, then, undergo review?

12 To me, then, you're just doing Part 50 by
13 another name because that's what we did at the OL
14 stage, and I've done it twice. You come in with your
15 FSAR and you say here are all the changes I made from
16 the PSAR. They look at them and say okay, operating
17 license issued. It seems like that's where this is
18 going, to me.

19 MS. BRADFORD: It's a good comment. We
20 can take that as a comment and think about that when
21 we're looking at the changes.

22 MEMBER BROWN: One clarification --

23 MEMBER CORRADINI: Can I ask a question?

24 CHAIR SUNSERI: Go ahead, Mike.

25 MEMBER CORRADINI: I guess I don't think

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1 you've answered Harold and Charlie's question. Taking
2 the comment in doesn't clarify for me what I thought
3 Harold was asking. What does it resolve? Does it
4 resolve by an ITAAC? Is it resolved by -- how is it
5 resolved? I thought that was Harold's question.

6 MEMBER RAY: It is, Mike, but I thought we
7 should probably discuss it and elaborate on it later,
8 so that we don't lose -- I messed up the presentation
9 here already. That's right. That's still on the
10 table. I think she indicated it was a good question
11 and we should pursue it further.

12 MS. BRADFORD: The short answer is when it
13 is resolved depends on what the change is. In some
14 cases, if they did it under 50.59 like and they
15 determined they didn't have to come to the NRC, they
16 keep track of all those changes, and our inspectors
17 can go look at it.

18 Or it might be a change to something that
19 we do use the ITAAC to go look at. Or it might be a
20 change that they decided needs a LAR, and then we've
21 approved that LAR. It kind of depends, is the thing.

22 MEMBER RAY: Yes, but we haven't gotten
23 into the difference between Tier 1 and Tier 2*, for
24 example. One of the issues that I've shared with my
25 colleagues is in the past, there was always an

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1 explanation of why these requirements existed. For
2 example, in the case of Tier 2*, it was that it
3 included things like codes, standards, and processes,
4 analysis processes. We should hold that for later, I
5 think.

6 When you get down to Tier 2* versus Tier
7 1 versus Tier 2, we're getting into the -- where we're
8 just, I think, making inputs, and you're not going to
9 want to answer us, just see what we have to say and
10 take it back to think about it. Why don't you go
11 ahead?

12 CHAIR SUNSERI: Let me interject right
13 here. I think it's clear that there's going to be a
14 lot more details that need to be fleshed out and
15 developed as you make these changes. Some of our
16 questions are hitting on some of those areas where I
17 would imagine, quite frankly, the details don't exist
18 and you're thinking about those.

19 We're not reviewing a final product.
20 We're reacting to some of the things we see based on
21 our experience. I would just suggest that you
22 consider our input and our questions as maybe even
23 cautions as things that have bit us before that you
24 should be thinking about as you pursue the new
25 rulemaking, not a direction that has to be this way or

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1 that way. Is that fair? All right, thank you.

2 MEMBER BROWN: Can I amplify -- not
3 amplify it, but -- one of my difficulties and the
4 reason I ask some of these questions is it seems like
5 these 50.59 like -- the PDA and FDA, the various
6 little nuances are almost like little pieces stuck
7 around in places. There's nothing that says if I'm an
8 operating plant, I'm a linear thinker.

9 Bang, bang, bang, bang, here's what you do
10 once you're operating. Forget all the other shafafa.
11 For instance, I guess I'm aware operating plant's
12 under Part 50. A Part 50 plant can -- like on the
13 mass stuff, the INC, they wanted to change the
14 protection systems. They can go do that. If they
15 don't submit an LAR, they will do it after the fact.

16 They get dinged because somebody sees them
17 doing something, then they come in for the approval or
18 what have you, but they can do the at risk thing under
19 Part 50, I presume, and they just take that chance
20 that somebody's not going to like it. But all these
21 other little nuances of how you do things, the
22 processes for this type of circuit, they're not laid
23 out. They're just kind of little -- go find some --
24 they're scattered throughout the entire Code of
25 Federal Regulations. It's very, very difficult to

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1 find a path for the circumstances that people keep
2 talking about. Every time I sit in another meeting,
3 somebody throws out another thing. It's just
4 difficult.

5 CHAIR SUNSERI: Charlie, I would submit --
6 and maybe Harold will correct me -- but what Anna
7 described for Part 52 is the same thing that the
8 operating plants go through. We can do the 50.59
9 change. We can change tech specs. There's a process
10 for that.

11 We can submit a license amendment request.
12 The operating plants have a whole variety of ways that
13 they make changes, as well. It can be -- that's why
14 we have regulatory affairs people. They help keep us
15 straight on which process to use.

16 MEMBER BROWN: My only issue is it's just
17 scattered. That's all. There's not someplace that
18 defines it and lays it out for each thing that may
19 occur. I'll stop right now and we'll go ahead and
20 finish the presentation.

21 MEMBER RAY: You don't make changes to an
22 operating plant and just hope nobody detects it. You
23 comply with the requirements. What she and I were
24 talking about is the fact that you can't do that to a
25 plant under construction, and you should be able to.

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1 I don't disagree with that. But when you do it, then,
2 the question is when does that difference get
3 reviewed? Having it reviewed by the field inspectors
4 is different than having it reviewed here, by staff.

5 We're really diverting us a lot from the
6 path that I think you guys want to finish up on. Then
7 we'll come back to a lot of this stuff. They are
8 implementing the requirements as if it was an
9 operating plant, and it's not. That's why it said, in
10 what I read, there isn't any risk to public health and
11 safety when you make a change to a plant under
12 construction, as long as it ultimately gets approved.
13 That's the question.

14 MR. O'DRISCOLL: Next steps. Briefly
15 covering next steps, the staff will consider your
16 feedback from this meeting as it continues to develop
17 the regulatory basis. The staff will develop and
18 issue the regulatory basis for public comment.

19 In order to be more efficient, the staff
20 will address these public comments when it drafts the
21 proposed rule. The staff will hold additional
22 stakeholder meetings, as needed, during the
23 development of the regulatory basis. Rulemaking
24 schedule. The staff plans to issue the regulatory
25 basis for comment in late August of next year. The

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1 proposed rule will be issued for public comment
2 approximately two years after this in June 2022, and
3 then the final rule will be issued in July 2024. With
4 that, we'd like to hear comments --

5 (Simultaneous Speaking)

6 MEMBER BLEY: You should know -- maybe you
7 already do, most people do -- you're not getting
8 comments from the ACRS today.

9 MR. O'DRISCOLL: Yes.

10 MEMBER BLEY: You're getting comments from
11 individuals.

12 MR. O'DRISCOLL: Yes, and we appreciate
13 anything you have to say.

14 MEMBER BLEY: It's a little hard to draw
15 a real connection to safety from many of the things
16 you're after. They're more process improvements, it
17 seems to me. But one always needs to ask the question
18 are we having an impact on safety by doing this?

19 MEMBER RAY: If we don't have any --

20 MEMBER BLEY: This level, we don't have a
21 way to say yet.

22 MEMBER RAY: I think it goes to the
23 question, Dennis, that I'm hoping we'll discuss
24 further, which is what is the process for signing off
25 on these changes? That's a discussion we ought to

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1 build up a little more in an extended way. If you can
2 make changes and they're never subject to review --

3 MEMBER BLEY: That's a safety question.

4 MEMBER RAY: -- that can be --

5 MEMBER BLEY: There are imbedded safety
6 questions.

7 MEMBER RAY: It could be a safety
8 question, right. There's one other thing that
9 Harold's been talking from. One of the viewpoints of
10 coming up with Part 52 was a one-step licensing
11 process. One of the other things that drove it was
12 the question of standardization because we had plants
13 right next to each other that were quite different
14 from each other.

15 You had to think about safety issues and
16 operational issues at every different unit. It was
17 the idea that if we had some standardization, that
18 wouldn't be a problem. That hasn't been -- this
19 didn't work the way I think some people involved in
20 its development thought it would. We don't have a
21 fleet of standardized plants. We don't have anything
22 close to that now. Maybe that standardization issue,
23 having to argue it each time, isn't very significant.
24 It would have been a nice thing to have standardized
25 plants. When you're developing first-of-a-kind

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1 designs or substantial changes from previous designs
2 and you don't have a customer, you don't get the depth
3 of -- saying review is a little dangerous, but you
4 really don't get the depth of challenging that you get
5 when you have somebody wanting to build one.

6 When we had the last modification to the
7 AP1000, you had a customer, finally, and there were
8 all sorts of things that came up that when somebody's
9 going to build one, nobody had really thought about.
10 I don't want that in here. I don't want that in here.
11 You had to make some big changes. I think Harold's
12 right, at this point. It's hard to see that Part 52
13 is anything other than an alternative process to have
14 one-step licensing.

15 MEMBER REMPE: Along your comment, one of
16 the things I saw that we were provided to review was
17 the staff's considering clarifying what they mean by
18 an essentially complete design. I didn't see anything
19 in your slides about that.

20 Before we get into our comments, could you
21 -- I know you're about ready to think about a break
22 here, but could you let us know, so we can thing,
23 during the break, what are your thoughts on that?
24 What are you going to do?

25 MR. O'DRISCOLL: I can go for that.

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1 Essentially, what it means is that the definition of
2 what an essentially complete design and what we are
3 actually asking applicants to submit for design
4 information seems to be different.

5 If you look at the SOCs from the 2007
6 rule, I think it was -- or maybe it was the first
7 iteration of Part 52, which is, I think, '89 -- there
8 was a definition or discussion in the SOCs about
9 essentially complete.

10 But yet, in practice, we seem to be asking
11 for information that, perhaps, may not be as important
12 as needed to make a safety finding, essentially
13 because -- and the reason to justify that information
14 was basically saying you need to have a complete
15 design. Somebody might say hey, I've got a completely
16 non-safety-related system, but it's part of my design
17 certification.

18 The staff has asked hey, I've got to
19 review this thing. I've got to come to some kind of
20 engineering conclusion on this, but I don't have any
21 information, so I have to ask for that information.
22 We need to try to fix that a little bit, trying to
23 make the boundaries a little bit better for that.
24 That's sort of what that's about. Does that make
25 sense?

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1 MEMBER RAY: But again, I think you're
2 going to the -- what I'd illustrate to be a
3 preliminary safety analysis, which has less complete
4 information than a final safety analysis has. We've
5 used that for years and years and years, but it's part
6 of a two-step process, not a one-step process.

7 That creates a dilemma, then, if you're
8 going to just do the PSAR and never do the OL FSAR,
9 what are the implications of that? I know you're not
10 suggesting that's what you're going to do. Don't tell
11 me that I misunderstand.

12 I'm just saying you go into a direction in
13 which you get closer and closer to what we used to do
14 in a PSAR, leaving an undefined batch of information
15 that used to be addressed in a Part 50 FSAR, and you
16 wonder how's it going to be addressed? It's very hard
17 for the staff, the ACRS, to come to a conclusion and
18 say these are the five things I based my conclusion
19 on, and nothing else.

20 Everything else can be whatever it is; we
21 don't care. That's hard to do. I think that's where
22 the essentially complete design idea came from was you
23 can't just reach a conclusion based on these few
24 things that we think are essential to adequate
25 protection and not know anything about anything else.

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1 I'm done with my preaching.

2 CHAIR SUNSERI: At this point, I'd like to

3 --

4 MR. COLACCINO: If I could, I'd like to --
5 Jim did a good job, I think. I wanted to address the
6 question directly. Essentially complete design is a
7 phrase in the regulations that I think all of us are
8 wanting a little bit of clarity on. We did write a
9 paper earlier this year, SECY-19-0034, where we tried
10 to tackle design certification content.

11 Some of the information you saw in the
12 transformational slide, if I can call it that, was
13 really captured in that paper. Essentially complete
14 design, what we were trying to resolve there is that
15 what we think it means -- at least, I'll say
16 personally, now, what I think it means is that we
17 would like to resolve all our safety issues with the
18 appropriate scope and level of detail that comes in
19 with the application.

20 Obviously, you can't -- trying to decide
21 where that line is is challenging. That goes to your
22 comment about you need, I'll use the word context, in
23 looking at the application to ensure that not only all
24 the safety issues are resolved, but that you have more
25 than a preliminary design, you have a design -- let's

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1 just take the design certification phase, where you
2 can -- we then have confidence that we have finality
3 on that design. Yes, we agree 100 percent. Anyway,
4 that's what we were trying to -- I wanted to answer
5 your question directly. That's what we were looking
6 to go --- here you go.

7 MS. BRADFORD: One more comment. I think
8 from the industry's point of view, the essentially
9 complete design question, I'll say, also just directly
10 relates to level of detail. Industry would say FSARs
11 that they submitted to us 40 years ago were this big.
12 Now, FSARs they submit to us are this big. Why is
13 that?

14 Why is staff asking for more and more
15 information? That's kind of the heart of the question
16 is what is it, exactly, do we need to make our safety
17 determinations? Can we make that clearer for
18 ourselves and for the industry? It's a hard question.
19 If you have thoughts on that, we'd love to hear them.

20 MEMBER RAY: It is because the growth has
21 occurred as a result of experience, not anything else.
22 You've got to somehow back out that experience and say
23 we were wrong in asking for this information. Anyway,
24 we should --

25 CHAIR SUNSERI: On this topic or a new

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1 topic? We're going to take a break before we enter
2 any new topics.

3 MEMBER BROWN: Just one that's on this
4 topic.

5 CHAIR SUNSERI: Okay.

6 MEMBER BROWN: My brain's not that
7 advanced.

8 CHAIR SUNSERI: Okay.

9 MEMBER BROWN: You commented that the
10 AP1000 -- I think it was you behind my back, Anna --
11 during their construction process, which they are
12 still in, they submitted over 100 LARs.

13 MS. BRADFORD: Yes.

14 MEMBER BROWN: I guess we approved the
15 design certification when, six years --

16 MS. BRADFORD: 2011-12, something like
17 that.

18 MEMBER BROWN: Seven years or eight years
19 ago. How long did it take to -- all those approved,
20 at this point?

21 MS. BRADFORD: Yes. We typically approve
22 LARs in less than 180 days.

23 MEMBER BROWN: That's six months.

24 MS. BRADFORD: We can do it. Are you
25 saying that's short, or are you saying that's too

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1 long?

2 MEMBER BROWN: That's too long. How in
3 the world can you build a plant if it takes 180 days
4 --

5 MS. BRADFORD: What you're hitting on is
6 exactly what we're trying to address with the changes
7 during construction.

8 MEMBER BROWN: Let me amplify that. For
9 35 years, I worked in the naval nuclear program. I
10 was involved in every construction project from the
11 CGN-35, the Nimitz class 688s, the SSBNs, the
12 Tridents, the Virginia class, the Seawolf, in every
13 one of them.

14 I can guarantee you that our response when
15 we had problems, if something wasn't right in
16 accordance with the design, those got answered, in
17 general, in days or weeks because the yard is -- down
18 there, you're spending \$100,000 a day watching guys
19 suck air, not doing any work.

20 Six months, just in my personal opinion --
21 that's what I've observed based on a lot of comments
22 and general discussion. That process takes way too
23 long. The responsiveness is key to keeping the cost
24 down for the people, as well as -- you obviously have
25 to maintain safety, but how much mouse milk is paper

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1 going back and forth? That's my term.

2 (Simultaneous Speaking.)

3 MS. BRADFORD: We haven't really gotten
4 into it. We do have what's called the PAR process.

5 MEMBER RAY: Exactly.

6 MS. BRADFORD: You can submit a PAR at the
7 same time you --

8 MEMBER BROWN: That's a preliminary
9 amendment request? What's the --

10 MS. BRADFORD: Yes, a PAR basically lets
11 you proceed with the change at risk before we've
12 approved the LAR. The whole point of that is to not
13 interfere with construction. That's the whole reason
14 we put that process in place. We did not want them to
15 have to wait six months because obviously, no
16 construction site would want to have to do that.

17 There is a process where they can get a no
18 objection letter from us saying fine, you can go ahead
19 and proceed with that at risk while we're reviewing
20 your LAR. There is a process for that. What you're
21 saying in terms of restriction during construction, I
22 agree with you. That is feedback we've gotten from
23 the units under construction, as well as other parts
24 of industry. It's one thing we want to try to address
25 in this rule.

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1 MEMBER BROWN: I didn't hear that.

2 MS. BRADFORD: We didn't go over --

3 (Simultaneous Speaking)

4 CHAIR SUNSERI: Okay.

5 MEMBER BROWN: I understand. It's part of
6 the detail that we haven't gotten to, and this was an
7 overview of what you're all --

8 (Simultaneous Speaking)

9 MEMBER RAY: Charlie, the at risk words in
10 the recommendation here that I read earlier, in the
11 thing I waved to you, that's exactly what she's
12 talking about.

13 MEMBER BROWN: Okay. I'm just trying to
14 understand. When I read it, I'm just trying to make
15 sure I understood it --

16 MEMBER RAY: I'm just saying we did talk
17 about it.

18 MEMBER BROWN: -- in your context.

19 MEMBER RAY: We did talk about it.

20 MEMBER BROWN: I quit. I'll turn off my
21 Michael.

22 CHAIR SUNSERI: You were very sneaky in
23 slipping in a different topic, other than essentially
24 complete. We are going to take a break and come back
25 at a quarter to, ten-minute break, short one. Then

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1 that will allow for a smooth flow of the rest of the
2 dialogue to completion. Thank you. We will recess
3 until quarter to.

4 (Whereupon, the above-entitled matter went
5 off the record at 9:34 a.m. and resumed at 9:48 a.m.)

6 CHAIR SUNSERI: Let's try this again. We
7 are reconvening the session now. Before we go around
8 the table or get started in the room, I'd like to go
9 to the members that are on the phone or on Skype and
10 see if you guys have any input or questions at this
11 stage.

12 MEMBER RICCARDELLA: Yes, this is Pete,
13 Matt, can you hear me?

14 CHAIR SUNSERI: Clearly.

15 MEMBER RICCARDELLA: I have a question on
16 Slide 13. Could you perhaps show a little -- go into
17 a little more detail of what's intended on that first
18 sub-bullet regarding DC renewals?

19 MR. O'DRISCOLL: I think I can speak to
20 this a little bit. Basically, we're trying to see
21 what the value is in the DC renewal process. We have
22 a DC that's currently under review. We're trying to
23 see -- based on our activities to date, we're trying
24 to see what, if any, safety -- importance to safety
25 decisions we've been making for that review that would

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1 validate the amount of effort that we have spent on
2 that review to date. Go ahead.

3 MEMBER RICCARDELLA: Yes, I've got a
4 similar concern because we are in the process of doing
5 an ACRS review of that renewal. In the spirit of
6 transformation, it's not something that we'd really
7 prioritize and do, but our ACRS staff has advised us
8 that no, it's a regulatory requirement review DC
9 renewals. While you're in the process, could you take
10 a look at that requirement?

11 MR. O'DRISCOLL: Yes, that's precisely
12 what we're doing.

13 MEMBER RICCARDELLA: Thank you.

14 CHAIR SUNSERI: Okay, I think Mike had to
15 step away. How about David or Walt? Any comments
16 from you guys?

17 MEMBER KIRCHNER: This is Walt. Hello?

18 CHAIR SUNSERI: Yes, we hear you.

19 MEMBER KIRCHNER: I want to go back to the
20 essentially complete discussion. I think a
21 fundamental issue that I see -- and I would associate
22 myself with Harold's early comments on this --
23 basically, when you go back to -- this was -- these
24 goals were put in place for 52. In particular, I'm
25 looking at 52.41 scope. There are two sections. The

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1 first one is where we find essentially complete, which
2 isn't defined in those definitions. Basically, we're
3 talking about designs which are evolutionary changes
4 from LWRs with design, licensing, operating
5 experience.

6 That's part -- I think it's B-1. Then B-2
7 opens the door to something that I feel is going to be
8 very problematical. I think we're seeing it already.
9 That is Section 2, under scope there, says designs
10 that differs significantly or use simplified, inherent
11 passive or other innovative means to accomplish safety
12 functions.

13 It stops short of what is implied in
14 Section B-1. B-1 essentially implies a level of
15 maturity and experience that is not going to be
16 present with an advanced reactor trying to use 52
17 process. One suggestion is that the second item, B-2,
18 needs something that's parallel, if you will, to what
19 is implied in B-1.

20 The parallel that I could see would be
21 that it's been demonstrated in a prototype plant. If
22 you go, then, and look at the definitions for
23 prototype plants at the beginning of Section 52, you
24 will find that a prototype plant is defined as a
25 nuclear power plant that has new safety features

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1 similar to first of a kind or standard plant design in
2 all features and size. I underscore that last phrase,
3 all features and size. It seems to me that there's a
4 fundamental problem.

5 Obviously, this is personal opinion, but
6 my sense is that the applicants with advanced designs,
7 particularly when there is not a prototype plant,
8 should be redirected through the Part 50 process, not
9 the 52 process or the 52 COL process, which is another
10 option. It just -- it wasn't written for that
11 purpose.

12 Now we're trying to make it embrace a
13 broader purpose than was envisioned, I believe, when
14 these regulations were first promulgated. Just a
15 second point is that the 50.59 process also has
16 basically been used for plants where we had -- first
17 of all, the plants have an FSAR, which you don't have
18 the equivalent of for an advanced design that's
19 seeking a DC.

20 I really question the appropriateness of
21 the 50.59 process being used for a design
22 certification that's trying to squeeze through the 52
23 process. I don't think that was the original
24 intention. I don't think it's a good fit for the
25 issues that are safety related that the agency is

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1 charged with dealing with. And then just one quick
2 last comment. You know, on this essentially complete,
3 if anything -- I'm not the PRA expert, but one thing
4 that we've learned is that it's often other systems
5 and integrated systems performance that, at times, may
6 be more dominant or significant contributors.

7 If we get a design that just focuses --
8 and I'll make up an example -- on the reactor or on a
9 plain advanced passive inherent safety features, but
10 we don't know how the rest of the systems integrate
11 with that system, it's an incomplete picture, in my
12 mind, to use the certification -- whether it's a
13 standard design or a DC. It seems to be a poor fit.
14 That's my input. Thank you.

15 CHAIR SUNSERI: Thanks, Walt. Just for
16 the record, Dr. Corradini did send me some input.
17 That is in reference to the comments that Charlie was
18 making with the license amendment request taking 180
19 days. I know that's an approximation. His belief is
20 that's an area that improvement would be warranted to
21 shorten that time frame to be more timely with respect
22 to the applicants' needs. That's another input for
23 you.

24 MEMBER RAY: I got that, too. I hope he
25 gets back and we're still here because I'm not sure he

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1 understood that the intent is to allow work to proceed
2 and that the issuance of the LAR approval simply takes
3 place in due course, and it doesn't --

4 CHAIR SUNSERI: Yes, but I think the point
5 --

6 MEMBER RAY: -- hold up construction.

7 CHAIR SUNSERI: The point being, though,
8 that you're at risk for six months. It would be nice
9 to have the risk uncertainty removed.

10 MEMBER RAY: For sure.

11 CHAIR SUNSERI: Now, back to the
12 discussion. Our last topic was along this notion of
13 what the design means to be complete. Do we want to
14 continue with that or pick up a new topic?

15 MEMBER BLEY: I want to stay with that for
16 a minute. Walt said it a little differently than I
17 was going to, and Harold's point that we used to, with
18 the two-step process, you had the PSAR, and then the
19 FSAR that got reviewed.

20 Essentially complete's really technically
21 hard to define. I want to talk two kinds of systems,
22 the pumps and pipes and valve systems, and then the
23 digital I&C real quickly. What we've all seen from
24 single failure kinds of reviews and from PRAs is the
25 real problems -- the places where things go wrong are

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1 in the details of the design. If you have a
2 simplified piping diagram that shows that the
3 functions all ought to work right, but you have cross
4 connects that aren't in there, and you have instrument
5 tops that aren't in there and things like that, when
6 you do the detailed analysis, those things crop up and
7 the interfaces, where one system interfaces with
8 another.

9 That's where the risk lies. If you don't
10 get a good hard look at those, if those aren't there,
11 you don't have an essentially complete design from a
12 safety point of view. Digital I&Cs also come up with
13 a nice set of high-level concepts that if you meet
14 those, you get a lot of confidence. I've been
15 involved in that.

16 You do, but that only translates into a
17 safe design when it's detailed and complete, when you
18 have taken that final design and played it against all
19 of those high level criteria and are convinced it's
20 working. If that's not part of the licensing review
21 process, then we don't have oversight, at least, on
22 that. Those are real hard to do without the details.

23 MEMBER BROWN: Can I amplify your
24 comments?

25 MEMBER BLEY: You can do anything you

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1 like.

2 MEMBER BROWN: The framework we've been
3 trying to use, just for an example -- this is just one
4 area. The digital I&C seems to be a controversial
5 area in a compliant from licensees across the board.

6 The framework approach we've taken, where
7 we get at least an architecture that shows what it
8 looks like, then we've attempted -- I think we
9 succeeded in the later design certifications, a little
10 bit less than the ones 12 years ago, when we were
11 still trying to figure out what we were doing -- is
12 that there are touchpoints within that architecture
13 which, if they comply with the terms specified as part
14 of the DCA, the design certification, and the DCD, the
15 document that calls them out, which then gets, I
16 guess, subsumed within the rule when you finally get
17 your appendix, whatever appendix is approved for that
18 design, if they remain within that framework and they
19 don't change those specific touchpoints, you might
20 consider a little bit more freedom of operation within
21 that world when you've got a framework that tells you
22 hey, you meet these principles, you're okay, and
23 you've got them defined, in terms of the general
24 architectural concepts within the licensing basis that
25 you can be pretty flexible on that. You don't have to

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1 be quite as contentious. Can that apply to other
2 areas? I don't know. Does that work somewhere in the
3 piping systems or fluid systems? I don't know. All
4 I did was work on the stuff I had some more detailed
5 knowledge of.

6 I don't know whether that's productive to
7 look at that from an NRC standpoint, as an approach to
8 how do we deal with longer-term concepts of how the
9 plants are designed and will that allow us to be more
10 responsive and more flexible, in terms of how we do
11 business. It's just a thought process. That's all.

12 CHAIR SUNSERI: If I could summarize your
13 point, there, you're saying that from a safety
14 preservation versus the constructability timeliness
15 and all that stuff, the 50.59 like process, if it had
16 an appropriate set of criteria in there that allowed
17 the process to handle these kind of changes that
18 didn't have a profound impact on the safety
19 determination, that's the key.

20 That's the key is what are those criteria?
21 How are they going to be broken down to allow, what
22 I'll say a resident inspector or on-site inspector to
23 pass the judgment versus the vast knowledge of the
24 staff here to pass the knowledge or to pass the
25 judgment on it, right?

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1 MEMBER BROWN: Right. One of the reasons
2 I tried to do that when I first got here, the first
3 plant we looked at, fundamentally the DCD said we're
4 going to meet IEEE spec requirement, every reg guide
5 requirement. In the guide, the architecture was four
6 lines with a couple of boxes in it which said we'll
7 trip the plant when it's not okay.

8 Fundamentally, what that broke down to is
9 you go look at each of those IEEE standards,
10 international -- IEC, whatever they were, as well as
11 the reg guides, there's probably 100 or more specific
12 little detailed requirements.

13 I equated it probably a little bit too
14 much so, but enough for the example of trying to
15 evaluate a design by looking at how the cam shaft is
16 designed or how the brake pedal was designed or how
17 the carburetor injection valve operated.

18 Once you've approved all those little
19 pieces, you know what the car looks like, when you
20 don't really know what the car looks like. We
21 translated it up to a higher level. Can you do that
22 in relation to the fluid systems and/or other -- the
23 other systems in the plant which provide that? That's
24 how I reviewed when I first -- I didn't have any idea
25 how I could ever provide the committee with a

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1 recommendation on hey, do I think this stuff is okay?
2 It wasn't because I was brilliant; it's just because
3 that's the way I had done stuff in the past, in the
4 Navy program. We had a lot of details, but we still
5 had an overarching architecture within which we
6 operated, which gave us some confidence. Anyway,
7 that's just a little background.

8 MEMBER RAY: Matt, can I --

9 CHAIR SUNSERI: Yes, let me --

10 MEMBER RAY: -- pick up here?

11 CHAIR SUNSERI: -- right, just one second.

12 I know Dennis has some time restraints today. I'm not
13 sure what those are, but you have any input?

14 (Simultaneous Speaking.)

15 MEMBER BLEY: I wanted to hear something
16 about Tier 1, Tier 2 --

17 PARTICIPANT: That's exactly --

18 (Simultaneous Speaking)

19 MEMBER BLEY: -- Tier 2* and where they're
20 headed with that, what they're thinking about.

21 CHAIR SUNSERI: Okay.

22 MEMBER RAY: Thank you. I appreciate that
23 Dennis's time constraints need to be considered here,
24 but SECY-17-0075 did a very thorough review of why
25 Tier 2* exists and considered explicitly whether to

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1 abandon it or keep it. It refers back to 23 years
2 ago, in '96, when Tier 2* was established, at the
3 industry request, to get things out of Tier 1, but not
4 make them -- not subject to review when change was
5 needed.

6 It isn't explicit, of course, in the
7 current rulemaking, what will be the outcome, but I
8 would just urge that the reasons why it was decided in
9 SECY-17-0075 to keep Tier 2* need to be explicitly
10 addressed when we decide those reasons are no longer
11 applicable.

12 I think the point's been made here
13 already; one of the reasons was that -- now quoting
14 from 96-0077 -- Tier 2* was intended to preclude
15 changes in, quote, codes, standards, and design
16 processes without NRC approval. That's just one
17 reason.

18 I don't know how it's actually been
19 implemented recently, other than to say that in the
20 SECY-17 that I referred to, it says -- I'll just read
21 this. Staff review finds that most 50.59 like reviews
22 and Tier 2* information changes, when performed by the
23 staff, would trigger the need for prior NRC approval.
24 That's what it says. Therefore, the Tier 2*
25 designation might have been unnecessary because,

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1 presumably, the license holder would have come to the
2 same conclusion without designating as Tier 2*. But
3 then it goes on to say but maybe the licensee would
4 have come to a different conclusion and, even though
5 it should have gotten prior NRC approval, it would not
6 have.

7 Because having done many, many 50.59
8 evaluations, which is almost the same thing, they are,
9 in many ways, subjective, in terms of what their
10 outcome is. Best judgment is used, I think, in all
11 cases, but the upshot is that there's a strong,
12 lengthy analysis of Tier 2* and its reason for
13 existing and whether it should be abandoned.

14 The conclusion is reached that it should
15 not. That was just two years ago, and it said it was
16 based on AP1000 experience. If a plan now would be
17 that now we don't need Tier 2*, it's going to -- in my
18 judgment, the committee will want to see how has your
19 analysis changed, and why?

20 That's just input for you. I don't expect
21 you to answer me now because you haven't decided what
22 to do. There's a strong explanation, I think -- like
23 I say, it's a long SECY explaining why we need to keep
24 Tier 2*. I don't feel strongly one way or the other
25 about it. I do feel that the ability to proceed at

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1 risk is important. But the thing that I am still
2 searching for and I want to give Dennis a chance to
3 speak up here us what is the milestone equivalent to
4 the OL review in Part 50?

5 I've already conceded that ITAAC are
6 established for the reason that there are things that
7 need to be checked off before the operating license
8 can be made effective or fuel loading can occur, but
9 there's a lot of hand-wringing and agonizing over
10 ITAAC, also. There's a strong desire to avoid review.

11 Yet, we're -- I'm talking about at the OL
12 implementation point. But what's going to happen?
13 Matt referred to the on-site resident folks reviewing
14 the 50.59 like process as it takes place. Is it going
15 to be suggested that that's sufficient or that it'll
16 be reviewed in the FSAR that's submitted at some time
17 after the plant goes into operation?

18 Those are things that I think need to be
19 addressed in the same forthright way that SECY-17
20 addressed why Tier 2* should be kept.

21 MS. BRADFORD: Let me just make sure --
22 what I'm hearing you say is that we need to make sure
23 that the correct regulatory footprint is maintained on
24 changes, especially those that are important to
25 safety, yes?

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1 MEMBER RAY: Perhaps, but I'm even more
2 interested, as I keep saying, in how do you -- as we
3 allow more and more deviation from the certified
4 design and we're getting to the operating license
5 stage, we check off the ITAAC.

6 Is that it, or is there something else
7 that's going to happen as a result of the increased --
8 the illumination, let's say, of Tier 2* and getting
9 closer, as I used the analogy earlier, to a Part 50 OL
10 review.

11 Is there anything going to happen, other
12 than those that are established at the COL stage, by
13 means of the ITAAC and the DAC, to ensure that
14 everything is satisfactory before the plant goes into
15 service? That's the thing that I think needs to be
16 addressed. I think it's talked about pretty well in
17 the defense of Tier 2* retention just two years ago.

18 MS. BRADFORD: Okay, thank you, good
19 comment.

20 CHAIR SUNSERI: Dennis.

21 MEMBER BLEY: I guess I'd follow that up.
22 I agree with Harold on that. That's never been
23 specified. The closest it came was back when there
24 were a lot of DAC in an application, design acceptance
25 criteria. We kind of argued that -- we did argue and

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1 wrote at least one letter, maybe a couple on this,
2 that said -- it's almost like the emperor has no
3 clothes.

4 The design, if it's really incomplete, and
5 it might be for reasons that technology's changing
6 fast, whatever those reasons, once you get to the
7 final design, and when you're building the plan, the
8 spot checking of these DAC with their parallel things
9 in ITAAC now, and then in that final design, by an
10 inspector, wasn't really the same thing we get when we
11 do a review looking for those -- the details.

12 It kind of reached the point on those that
13 the staff had agreed that what they really mean by the
14 inspection is that on the DAC, the staff here, in the
15 area of expertise, would review it carefully and
16 cooperate with the inspectors, and there was an SRM
17 from the commission that said, in the first few cases
18 of those, you ought to come back to the ACRS and we'll
19 see how the process is working.

20 We never got that far. We almost did a
21 couple times. It's the same point Harold raises.
22 What's like an operating license review after the
23 design's all done and you're building a plant?
24 Somehow, that's got to be covered. I have one other
25 thing you haven't talked about. I'm sorry I didn't

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1 bring examples. As we've gone through design certs,
2 we've hit places where we've said what will happen --
3 how will this track on once the plant's operating?
4 There's been a little bit of oh, it'll be covered by
5 Part 50.

6 Oh, we'll work that out later. You didn't
7 talk about those kind of things, where there's gaps
8 between what's done with operating plants and what's
9 done through the Part 52 process, all the way up until
10 the plant's operating. Somewhere, that needs to get
11 clarified. I don't know if it has anything to do with
12 this, but it was talked about at the time as
13 reconciling some differences between 50 and 52 or
14 having pointers that get you out of this.

15 MR. O'DRISCOLL: That sounds like the
16 alignment side of the rule. And the idea, again, is
17 to -- when you have two plants out there essentially
18 just -- if somebody chose one or the other post
19 issuance of license that it would be treated the same
20 way. The same regulatory outcome would come for the
21 various systems that they have. That's the goal of
22 what we're trying to do when we say alignment.

23 MEMBER BLEY: Okay, that's good because
24 now -- I'm sure it will work, but if you do it for one
25 plant or two, it's okay to kind of do it ad hoc, but

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1 having a process laid out through what you're doing,
2 it makes a lot more sense in the long run, I think.

3 MS. BRADFORD: The other thing I would add
4 to that is once they are an operating reactor, they
5 will move over to the reactor oversight program, just
6 like the operating reactor. They will be subject to
7 all those same programs and requirements and all that.
8 We have been planning for that.

9 MEMBER BLEY: That's about all I wanted to
10 put in there, Matt.

11 CHAIR SUNSERI: All right, great. Vesna,
12 you have something?

13 MEMBER DIMITRIJEVIC: Yes. My main reason
14 why I came to this meeting today was because I'm the
15 PRA expert. I was very interested in 50.59. I
16 thought it would be very beneficial to apply this
17 earlier than later, especially because most benefits
18 will be realized through the procurement in the
19 construction phase.

20 Plants are, of course, very interested in
21 that. That means sitting here, we're talking maturity
22 of design, maturity of PRA is even more -- because not
23 only does PRA depend on design, but also depends on
24 the MITONS and things that develop through standards,
25 things like that. We are definitely not going to have

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1 a mature PRA if we -- if this is what we are expecting
2 to use the 50.59. The question is, which I couldn't
3 really answer because first, what I asked -- okay,
4 this is what I really asked myself. I don't know how
5 to answer the question.

6 My first question is let's say the systems
7 are now divided by the current domestic rules, you
8 don't have a scientific base. They're based on
9 experience. There is some common sense smart
10 engineering judgment rules which are currently used in
11 industry to divide the safe activities with non-safe.

12 We now introduce a new element. We have
13 these new rules. I don't really see any reason why is
14 one better than the other, independent of maturity of
15 the PRA. That is because regulation was throughout
16 the risk informed approach, but actually is not risk
17 informed, is based on the domestic rules.

18 I cannot really judge one versus another.
19 I know in the area of in-service inspections, the
20 domestic rules were totally unapplicable. The only
21 thing I cannot really have, because I don't know
22 what's the right answer, and I can see what Dennis
23 say. We can learn so many things through the PRA. We
24 can find outliers; we can fix them. If you look in
25 the current PRAs, we will find outlier like for large

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1 locus and we will say put that WS thing inside
2 containment. Now, everybody does that. Would we ask
3 for them to fix such a big outlier? The question is
4 how safe is safe enough? Nobody knows answer to that
5 question.

6 If somebody comes with a plant which has
7 a ten to minus nine risk, why do we have to impose all
8 of these requirements on that? Maybe we should just
9 identify, first, what is new, does what is new work,
10 what is important, and how they maintain important
11 things.

12 That's why I thought maybe -- when Harold
13 said maybe we can put some simple rules to maintain.
14 But the thing which I was thinking we definitely can
15 do -- I mean you (Laughter) -- which I was thinking
16 you definitely can do -- because the NRC, sometimes
17 they identify questions, they discuss them, and then
18 they just close the eye and leave them like that.

19 That's the no way, in my opinion, to
20 address for the advanced reactors. When you see --
21 there was so many discussions what risk measures
22 should be used relative or absolute. Not any
23 conclusion was ever made. How does -- we have a very
24 loose connection between CDF -- first, we never even
25 defined what's large from these because that also

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1 hangs in there. We have a very loose connection
2 between quantitative goals and CDF and others. Now,
3 when the plants come which may not have a CDF, it will
4 be very interesting to address this quantitative half
5 goal because we are definitely not imposing higher
6 risk than 0.1 percent on public with anything which
7 comes with those.

8 If our goal is not to impose higher risk
9 than car accidents, chemical industry, then we can
10 define more general measures. I was thinking that
11 commission should have the question of unanswered
12 things hanging in the air.

13 Maybe not all of them can be answered, but
14 at least we really should know what they are and how
15 much they will buy us in streamlining a regulation for
16 advanced reactors. That's all what I can say. It's
17 not really -- I don't really know how all of this can
18 be addressed. It's definitely a complicated issue.

19 MS. BRADFORD: Just process wise, I would
20 say we are going to do a separate rulemaking for
21 advanced reactors. We're calling it Part 53. What
22 it's really called, I don't know. Maybe it's going to
23 address some of that. I don't know. It's even at an
24 earlier stage than this rulemaking. I would recommend
25 that you stay involved with that rulemaking, also,

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1 because I think it will address those types of things
2 for advanced reactors, specifically.

3 CHAIR SUNSERI: Thanks, Vesna. You have
4 --

5 MR. O'DRISCOLL: Yes, I was just going to
6 say the PRA angle on this rule is we at least want to
7 have the Part 50 folks that use that process to have
8 the same requirements for quality and upgrade on their
9 PRAs that the Part 52 has.

10 MEMBER DIMITRIJEVIC: I know that, but
11 that's --- you know, like with that part, many times
12 it says Category 1 based on the PRA standard is enough
13 for design certification, but nobody actually use the
14 PRA. I know the EPR did, right, went to peer review,
15 but it's too early to peer review PRA in design
16 certification phase.

17 If Category 1 is really low category, you
18 can go in much less details than any PRA which is
19 review goes. Most of the PRAs are coming in Category
20 2. This is like the quality requirements the PRA
21 should be how we define them. What's a quality
22 requirement? PRAs are so complex and everything, if
23 the operator flips the rings in Beijing, all the
24 numbers change in importance and everything. It's a
25 sensitive thing. Obviously, it's too complex. It's

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1 too complex, so maybe the rules for the quality could
2 be simplified. That's definitely one of those things
3 which grows and grows, the volumes, in some way that
4 makes easier for it to support important thinking in
5 the process.

6 CHAIR SUNSERI: Harold, do you have any
7 more input?

8 MEMBER RAY: Yes, I guess -- let me --
9 I've said all I'm going to say about Tier 2*. Let me
10 offer another perspective. Let me say I did serve as
11 the AP1000 subcommittee chairman. I went through a
12 lot with not just plant Vogtle, but also other plants,
13 at the time.

14 I think that it would be a good idea if
15 somebody, whether it's the NRC or not, could offer the
16 idea that the initial first-of-a-kind plant
17 constructed under Part 50 with a CP and OL, is then a
18 perfect basis for a very smooth one-step process on
19 follow-on plants.

20 Personally, I don't want to see design
21 certification changed, not because I'm a
22 standardization person, but because I don't want to
23 see it changed to the point that we don't really have
24 a one-step process anymore for follow-on plants. I
25 think it's a mistake, personally, to apply design

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1 certification to first of a kind, for the reasons that
2 we talked about. If I were in a position of a design
3 vendor without a licensee customer at the time, and I
4 wanted a product that I could market, I'd go for SDA.
5 Then you can use that either in Part 52 or in Part 50
6 for the first plant.

7 These options, I don't think, are being
8 adequately described in response to the outcry of
9 difficulty that plant Vogtle has experienced. Instead
10 of saying well, the lesson learned here is do the
11 first one as a Part 50, and then certify the design or
12 get an SDA, whichever way you want to go -- licensees,
13 by the way -- we had a design center for AP1000 during
14 the time before certification, in which there were
15 multiple perspective operating license holders -- they
16 have different views.

17 They have different ideas about how much
18 money they want to invest for benefits that accrue to
19 their constituents down the road. They don't really
20 like a complete plant design, essentially complete
21 plant design, that they have to comply with or get
22 amended, in many respects, because there are things
23 they either want to minimize the capital investment or
24 they want to make more investment to make maintenance
25 easier, all kinds of reasons why that's the case.

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1 Standardization, to me, doesn't have the enormous
2 appeal, but the one-step process does, provided it's
3 not first of a kind. That kind of summarizes my
4 experience and views on it. I just wish that idea was
5 promoted more widely.

6 I think SDA is a very good opportunity or
7 option that a design vendor has when he doesn't have
8 a customer and he's got a design concept that needs
9 some sanction in order to market it. Get an SDA.
10 Yes, it's not, then, an automatic one-step licensing
11 process that you go into the way you do with a design
12 cert, but it is something that the NRC's not going to
13 change their mind, in my judgment, on what they've
14 approved in your SDA.

15 It's something that is of value and will
16 expedite the first application of the plant. I think
17 there are options to what we're seeing take place or
18 what has taken place, in which I have an essentially
19 complete design without a customer, and then either
20 adhere to that or go through some painful change
21 process on this first-of-a-kind application. That
22 thought needs, somehow, to get into what the agency is
23 talking about here.

24 MEMBER REMPE: Harold, let me push it
25 further. Why do they need a Part 53? Why not just

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1 say -- or make a very simple paragraph for Part 53, go
2 get an SDA?

3 MEMBER RAY: I can't opine on Part 53. I
4 just haven't spent enough time to do it. It may be
5 the solution I'm talking about. I don't know, Joy.

6 MEMBER REMPE: Let me ask the staff this.
7 What's the difference between what you're thinking of
8 on Part 53 versus an SDA?

9 MS. BRADFORD: One thing I would say, I
10 agree with what you said, in terms of flexibilities
11 within the licensing process. But everything you said
12 can be done right now.

13 There were applicants a few years ago, I
14 think maybe (Simultaneous Speaking) Power, who were
15 going to apply for a construction permit, build the
16 first one, get it the way they wanted it, and then
17 apply for a design cert, and then have the design
18 cert, and then subsequent COLs could refer to that
19 design cert.

20 They thought that was the best way to go.
21 There's other applicants that want to do SDAs, also,
22 for the reasons that you said. There's some that --

23 (Simultaneous Speaking)

24 MEMBER RAY: Excuse me; let me interrupt.
25 When you say applicant, I think you mean a design

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1 vendor, as opposed to an operating license holder.

2 MS. BRADFORD: If it's a CP --

3 MEMBER RAY: They're two different groups
4 of people.

5 MS. BRADFORD: If it's a CP, it's an
6 applicant. If it's a design certification, it's a
7 vendor. It does depend which one you're talking
8 about.

9 MEMBER RAY: Okay, you mean a CP as -- you
10 mean a license applicant.

11 MS. BRADFORD: Yes. All those options are
12 on the table. Like you said, a lot of times, it's
13 their business case that will drive them to take one
14 or the other. We don't tell them which one to do.
15 There's advanced reactors now that are going to use
16 Part 50, or they say they might use Part 50. There's
17 some that want to use Part 52.

18 MEMBER RAY: Forgive me, if I read this
19 SECY on this rulemaking, I'd say oh, my gosh, this is
20 going to get really simplified. It's going to make it
21 so -- yes, I can get a design cert for first of a kind
22 and it's not going to be a problem.

23 MS. BRADFORD: I will say NuScale's first
24 of a kind and they're getting a design cert. They're
25 in the process right now.

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1 (Simultaneous Speaking.)

2 MEMBER RAY: We've been through that, and
3 we've going through it, so we --

4 (Simultaneous Speaking)

5 MS. BRADFORD: Right, and I'd offer --

6 CHAIR SUNSERI: I don't think we want to
7 bring in any specific --

8 (Simultaneous Speaking)

9 MS. BRADFORD: No, I'm just saying as an
10 example, that's a very different design, and they are
11 going for the design certification. That's what
12 they've decided to do.

13 MEMBER REMPE: I would also offer that
14 maybe their experience may lead to them having to have
15 a standard design for the first of a kind that's
16 built. Maybe that knowledge should be factored in.

17 MS. BRADFORD: Say that again.

18 MEMBER RAY: SDA, in other words.

19 MEMBER REMPE: They may want an SDA before
20 they actually do it.

21 MS. BRADFORD: Like KHNP did, right? Like
22 I said, when we issued --

23 (Simultaneous Speaking)

24 MEMBER REMPE: It may be different from
25 what's the certified design. It may be.

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1 CHAIR SUNSERI: In my mind, there's not
2 much technical difference between an SDA and a design
3 certification. The main difference, in my view, is
4 that the design certification has finality, which I
5 think would have a lot of value to a designer because
6 otherwise, if you're just going with the SDA approach
7 that doesn't have the finality, then you're
8 essentially doing what we've been arguing against as
9 proceeding with design at risk because then, you're
10 going to be negotiating throughout the construction
11 phase, maybe like a Part 50 --

12 (Simultaneous Speaking)

13 MEMBER RAY: Part 50 has a lot of design
14 at risk --

15 (Simultaneous Speaking)

16 CHAIR SUNSERI: Yes, but if you're -- I
17 would think -- I don't know if it's just me. I'm not
18 in this business, but I can wrap my head around it.
19 If I was a designer and I was trying to sell one of
20 these things, I'd want to sell one with some finality
21 to it, not open ended. That's been the industry issue
22 all along, I thought.

23 MEMBER RAY: Sure, but if it's the same
24 investment required -- that underlies what we're
25 talking about here. As we make changes to what's

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1 required for a design cert and make it closer to
2 what's required for an SDA, you're right. But that's
3 part of the issue here is should we do that and, if we
4 don't do it, because we can't, is there an
5 alternative? You would agree, I think, that the SDA
6 is an alternative, and if it's a lower-cost
7 alternative, it might meet the vendor's goals and
8 needs.

9 CHAIR SUNSERI: Yes. I don't know how --
10 I probably don't need to respond on this or not. The
11 difference in cost between an SDA and a design
12 certification -- I'll just reflect the cost in man
13 hours versus dollars or anything like that -- it
14 sounds like there's an interest there that if I'm
15 going with an SDA, I'm not going to give the same --
16 they have virtually the same scope, right?

17 PARTICIPANT: No.

18 MS. BRADFORD: They don't have to.

19 PARTICIPANT: No.

20 MS. BRADFORD: The SDA can focus on -- it
21 can just be a major portion of the design they can ask
22 for an SDA, or it can be for the whole design, like
23 the APR1400.

24 CHAIR SUNSERI: So it can be a limited
25 scope, which then increases -- all right. I withdraw

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1 my comment.

2 MEMBER RAY: In other words, if you have
3 a concept that you can't sell because people are
4 doubtful that the NRC would approve the concept, you
5 can bring it in as an SDA and get it addressed. If
6 it's approved as an SDA, you've defined the scope.
7 The issues within that scope, presumably, they don't
8 have certainty, but they have gotten agency approval.

9 MEMBER BROWN: Where is an SDA defined?
10 Is it under Part 52?

11 MS. BRADFORD: It's in Part 52.

12 MEMBER RAY: Part 52.

13 MEMBER BROWN: Is Part 52 a design
14 certification process?

15 MS. BRADFORD: It's several different
16 processes for new reactors.

17 MEMBER RAY: Charlie, listen to me.

18 MEMBER BROWN: I am.

19 MEMBER RAY: It's a section of the
20 regulations. You can get an SDA and use it in Part
21 50, or you can use it in a Part 52 COL application,
22 either way.

23 MEMBER BROWN: But it comes under the Part
24 52 rule.

25 MEMBER RAY: That's just the way the

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1 regulations are organized.

2 CHAIR SUNSERI: I just remember when we
3 were doing the last applicant that we had a table that
4 showed what was the design certification requirements
5 versus the SDA requirements. We matched them up, and
6 they were virtually the same, with the exception, now,
7 I clarified, is that they were applying for a full
8 scope versus a limited scope. I get it now, thanks.

9 MEMBER DIMITRIJEVIC: If they're applying
10 for limited scope, where does full scope get reviewed?

11 MEMBER RAY: In a Part 50 application, it
12 would get reviewed at the CP and OL stage. In a Part
13 52 application, with an SDA, it gets reviewed at the
14 COL stage.

15 MEMBER DIMITRIJEVIC: Basically, a review
16 process of course is the same, it's just -- maybe
17 same, or maybe it's more in one case. It's just
18 divided differently. Is that the issue?

19 MEMBER RAY: No, the design cert, we're
20 talking, Vesna, about essentially complete design. An
21 SDA does not have to be an essentially complete
22 design.

23 MEMBER DIMITRIJEVIC: I understand, but I'm
24 just addressing the caller thing, then is applicant --
25 full design has to be reviewed somewhere, right?

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1 Sorry, I'm not -- I'm new in NCRS, too. So regulation
2 is not my strong point. The full design, complete
3 design, has to be reviewed before the plant goes --
4 the fuel load and things like that. If it's not
5 reviewed in SBA, it has to be reviewed in the next
6 stage, COL stage. The thought, of course, or burden
7 or time is the same, right?

8 MEMBER RAY: But it's paid for by
9 different people. That's --

10 MEMBER DIMITRIJEVIC: That's what I was
11 saying. It's just paid by the different people --

12 (Simultaneous Speaking)

13 MEMBER RAY: But that's a big difference.
14 If you're a vendor seeking customers, your
15 investment's at risk. If you have a customer and the
16 customer is building a plant, it's very different.

17 MEMBER DIMITRIJEVIC: Okay, I understand.
18 I was just thinking if we were -- we don't really care
19 we saving money for vendor or we are saving money for
20 caller as the regulator, if we have to save money to
21 industry. We don't care about division. I understand
22 benefits of this --

23 (Simultaneous Speaking)

24 PARTICIPANT: We're not trying to save
25 money. We're trying to explain why there are options.

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1 MEMBER DIMITRIJEVIC: No, I don't mean to
2 say we want the process to be faster, more efficient,
3 and I support that, that we want this process -- okay,
4 what I just want to say is there some way that we can
5 just streamline review, so review is not so
6 burdensome?

7 MEMBER RAY: That is an issue. I would
8 suggest, for example, if you want to get into
9 streamlining review, that's a discussion that is going
10 to take place, obviously, but an example of it is the
11 Tier 2* discussion I had. Look at the SECY that
12 describes why we have Tier 2* and say we don't need
13 that. We don't need that.

14 The important thing, I think, is that
15 design cert should be preserved as a -- as somebody
16 who argued for it 25 years ago, it should be preserved
17 as something of value and not eroded, but it's very,
18 very hard to apply it to a first-of-a-kind plant. I
19 don't agree, by the way, that you shouldn't be able to
20 proceed at risk in a design cert. I think that's a
21 change that ought to take place. It already has with
22 the -- what do you call it, POR?

23 MS. BRADFORD: The PAR.

24 MEMBER RAY: PAR.

25 MS. BRADFORD: Yes.

1 MEMBER RAY: Right now, today, all Tier 2
2 information, you can change it under a 50.59 like
3 review process. You don't need commission approval to
4 change it. It's only Tier 2* and Tier 1 information.
5 Tier 1 requires a rule change; Tier 2* requires an
6 amendment. If you want to reduce the amount of Tier
7 2*, fine. I'm not in a position to argue that. My
8 only point is address the issues that were addressed
9 two years ago, when they decided to keep Tier 2*.

10 MS. BRADFORD: We heard your comments.

11 CHAIR SUNSERI: I just want to, for the
12 record, interject that we got -- the previous
13 conversation about SDAs and DCEs got a little
14 commercial for a moment. I just want to make sure
15 that we, as members of the ACRS, individuals and when
16 we get together, we're focused on safety.

17 I think the take-away from that
18 conversation, for me, was we just need to be careful,
19 as we make changes, that we don't do them for the
20 benefit of the commercial reason, but there is a real
21 improvement of the regulation, as it drives towards a
22 safe plant, in the end of the day.

23 MS. BRADFORD: I hope we said in our
24 presentation that we would not want to decrease safety
25 in any of these --

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1 (Simultaneous Speaking)

2 CHAIR SUNSERI: You did. I just wanted to
3 -- I was just reflecting on our --

4 (Simultaneous Speaking.)

5 CHAIR SUNSERI: -- conversation around
6 that topic.

7 MEMBER DIMITRIJEVIC: The discussion, from
8 my point, safety's, of course, our main goal is how we
9 made sure that safety is there.

10 MEMBER REMPE: I have a kind of question
11 related to some of that discussion. I know you have
12 to accommodate many of the applicant requests in some
13 of your response, but I'm wondering if they are
14 properly informed, and do they have a good avenue for
15 guidance for some of the different paths that might be
16 more beneficial for them to think about?

17 Because I think sometimes, these folks may
18 not be adequately informed. Then they may pick a
19 direction that -- hindsight's 20/20, if they thought
20 about it. Is there a good guidance document that
21 would say you could do this, but these are the
22 pitfalls?

23 You could do that, and you might come up
24 with something that's -- I can think of some examples
25 where jeepers, had they taken a different path, it

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1 might have been easier for them to have done
2 something. Of course, there's nuances on how they get
3 their financial backing that's beyond my
4 understanding.

5 MS. BRADFORD: I guess two thoughts I have
6 in response to that. One is we always have
7 pre-application interactions with vendors and with
8 applicants. Sometimes, the question they ask is which
9 regulatory path -- they're thinking about which
10 regulatory path they should be on, and they want to
11 talk to us about that. What do I need for this one?
12 What do I need for that one? What information do I
13 have to have at this stage for an SDA versus a DC?

14 We are often having those conversations.
15 Then in terms of a document, I think I referred
16 earlier, I think it's called regulatory roadmap, where
17 we laid out these options like SDA. Topical reports
18 is another avenue where you can get some approval from
19 the NRC on a particular part of your application.

20 That's where we tried to lay out the
21 flexibilities because we did challenge our self, maybe
22 four years ago, when advance reactors, meaning
23 non-light water reactors, were becoming a hot topic.
24 Do we have enough flexibilities in our regulatory
25 framework? We went back and looked.

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1 When we looked at everything that can be
2 exercised within the current regulatory framework, we
3 felt like yes, there is appropriate flexibility there
4 for the different types of reactors and vendors and
5 applicants that we think we might see. That's the
6 document where we tried to lay that out, the
7 regulatory roadmap.

8 MEMBER REMPE: Is that the one that
9 Jennifer Yule (phonetic) was involved with? I may
10 have seen it --

11 MS. BRADFORD: We can send it to you --

12 (Simultaneous Speaking)

13 MEMBER REMPE: -- and I've forgotten.
14 Yes, I'm not sure that I've seen something that really
15 gets into the details. Maybe I've not seen the same
16 document.

17 MS. BRADFORD: Like you said, or someone
18 said, it's not going to talk about, probably, the
19 financial impacts of each choice. It's not going to
20 -- but it does talk about what does, I think, each
21 option entail and what do you get as the end product.
22 We can send that to you --

23 (Simultaneous Speaking)

24 MEMBER REMPE: I'd be curious. I think
25 I've seen something, but I never saw anything that's

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1 really -- again, a financial path is hard to deal
2 with, but just that you could do this and it might
3 make it easier to make changes to a design later
4 because in SDA it's easier to make changes than a
5 certified design. It does impact finances --

6 MS. BRADFORD: We can send that to you and
7 you can see if it answers that question.

8 MEMBER REMPE: Okay, thank you.

9 MS. BRADFORD: Sure.

10 CHAIR SUNSERI: All right, anything else?

11 MEMBER REMPE: I'd offer the Skype --

12 CHAIR SUNSERI: I'm testing here.

13 MEMBER RAY: I'm sorry. Okay, let me
14 just, then, reiterate that I highly value the concept
15 of design certification, but to me, it was predicated
16 on essentially complete design. To the extent that we
17 can't achieve that, for whatever reason, I believe
18 there are alternatives.

19 But if we're going to modify design cert
20 so that it's something less than it has been, then I
21 think we need to address the issue of what is at the
22 end to review the difference between what we review
23 and approved, whatever it was earlier, and what is
24 finally going into service. How are we going to do
25 that? That summarizes my input.

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1 CHAIR SUNSERI: Thank you. I'm going to
2 turn to the guys that are on the phone and on Skype.
3 It's Pete and David and Walt. Do you have any other
4 comments for consideration?

5 MEMBER RICCARDELLA: This is Pete. No,
6 it's an interesting discussion, and I have no further
7 comments.

8 CHAIR SUNSERI: All right, thank you. I'm
9 just looking here. I don't know -- David, do you have
10 anything?

11 MEMBER PETTI: I have no more comments.

12 CHAIR SUNSERI: Walt?

13 MEMBER RAY: He wasn't here, was he?

14 CHAIR SUNSERI: He unmuted.

15 MEMBER RAY: He wasn't going to be able to
16 stay the whole time he told me.

17 MEMBER REMPE: He's here.

18 MEMBER KIRCHNER: Thank you. I just want
19 to associate myself with Harold's last comment about
20 preserving -- it's almost like raising the bar to have
21 it DC, rather than lowering it. But I saw that Anna
22 pointed out, there are other options for the advanced
23 reactors to pursue. So I just associate myself with
24 Harold's remarks. Thank you.

25 CHAIR SUNSERI: Anyone else? Now, we

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1 will, as part of the agenda, we'll turn to the public.
2 For the members in the room, is there anyone that
3 would like to make a comment on the record? While
4 we're checking for that, if we could open a phone line
5 for the public line. Nobody in the room is offering
6 any comments. On the public line, if there's anybody
7 on the public line that would choose to make a
8 comment, this is your opportunity. State your name
9 and provide your comment. Quyhn, are we sure the line
10 is open?

11 MR. NGUYEN: I'll check.

12 CHAIR SUNSERI: Anyone on the public line,
13 make your comment, provide your name. All right,
14 we'll close the public line. As far as next steps go,
15 at least it's our intention to stay in coordination
16 with the staff, through Quyhn, our staff member, so
17 Quyhn has already, obviously, reached out and
18 established a rapport with the group.

19 We expect that to happen. We understand
20 that the timeline is fairly far out in front of us and
21 that we're, I guess I'll say, back in process after
22 this meeting, where we'll follow our normal protocol.

23 I do want to say, though, we appreciate
24 the staff's accommodating us in this meeting today and
25 giving us the opportunity to provide early input, due

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1 to the unique nature of the importance of this
2 rulemaking and the fact that we have some experience
3 that may be leaving our committee, so we wanted to
4 share that with you. We do very much appreciate the
5 opportunity to do that. One last check, anything
6 else?

7 MEMBER REMPE: I also wanted to add my
8 thanks. Again, I was involved with -- when they
9 inquired if we could, so I do appreciate you doing
10 this. If there's opportunities in the future where
11 you think it might be good to go a little bit out of
12 process, I think it would be beneficial for us and
13 help facilitate the process, so please consider it.

14 CHAIR SUNSERI: All right, now we are
15 adjourned, thank you.

16 (Whereupon, the above-entitled matter went
17 off the record at 10:47 a.m.)

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ACRS Subcommittee Meeting:

**Alignment of Licensing
Processes and Lessons Learned
from New Reactor Licensing
Rulemaking**

September 20, 2019



NRC Staff Presenters



Jim O'Driscoll,
NMSS
Rulemaking Project
Manager



Carolyn Lauron,
NRO
Senior Project
Manager



Purpose

- To receive the ACRS Subcommittee's perspectives from its review of ESP, DC and COL applications, and the implementation of the 10 CFR Part 52 process



Purpose of the Rulemaking

- Implement Commission direction in SRM-SECY-15-0002, “Proposed Updates of Licensing Policies, Rules and Guidance for Future New Reactor Applications” to:
 - Align the reactor licensing processes
 - Improve clarity
 - Reduce unnecessary burden on applicants and staff



Background

- Staff is engaging in rulemaking to:
 - Address recommendations on **alignment of 10 CFR Parts 50 and 52**; Enclosure 1 of the SECY
 - Address **Part 52 lessons learned** that have unnecessarily challenged staff, applicants, and licensees; Enclosure 2 of the SECY
 - Consider **transformational changes**

Recent Activity

October 1, 2018

- Started scoping and outreach

January 15, 2019

- Held public meeting

July 11, 2019

- Alignment on scope

August 27, 2019

- Issuance of Commission Information Paper SECY 19-0084



Outreach

- Staff requested input on the scope of the regulatory basis from:
 - The general public
 - Industry organizations
 - Nongovernmental organizations
 - NRC staff
- Staff collected approximately 250 items for consideration



Screening Criteria

- Items were first considered if they met at least one of the following criteria:
 - Addresses alignment of Parts 50 and 52
 - Addresses lessons learned from licensing activities
 - Is a potential transformational change
 - Reduces unnecessary burden and does not impact other requirements



Screening Criteria (cont'd)

- Items were screened out if they met at least one of the following criteria:
 - The item would provide neither a significant safety benefit nor burden reduction to staff or industry while maintaining the agency's safety mission
 - The item could be addressed by the administrative rulemaking for corrections
 - The item could be addressed through the development of guidance outside of rulemaking

Scoping Results

- Four alignment items
- 52 lessons learned items
 - Four of which are transformational
- 8 additional items are corrections, to be addressed in the semiannual administrative rulemaking for corrections to the CFR.



Alignment Items

- The staff is considering revising the regulations in 10 CFR Part 50 for new power reactor applications to more closely align with requirements in 10 CFR Part 52 in four areas:
 - a. Apply the Policy Statement on Severe Reactor Accidents to new 10 CFR Part 50 license applications
 - b. Develop, submit, maintain, and upgrade a plant-specific PRA, submit appropriate information describing that analysis as part of the CP and OL submittals, and maintain and upgrade the PRA throughout the duration of the operating license
 - c. Address the TMI requirements of 10 CFR 50.34(f) with the same exceptions given for 10 CFR Part 52 applications
 - d. Provide a description and analyses of fire protection design features and describe fire protection plans



Lessons Learned Items

- As described in Information SECY 19-0084, the staff is considering revising the regulations to address lessons learned from new reactor licensing in several topical areas:
 - PRA requirements
 - Operator licensing
 - Security
 - Emergency planning
 - 10 CFR Part 52 licensing process
 - Environmental review
 - Applicability of other processes to the Part 52 Process
 - Miscellaneous



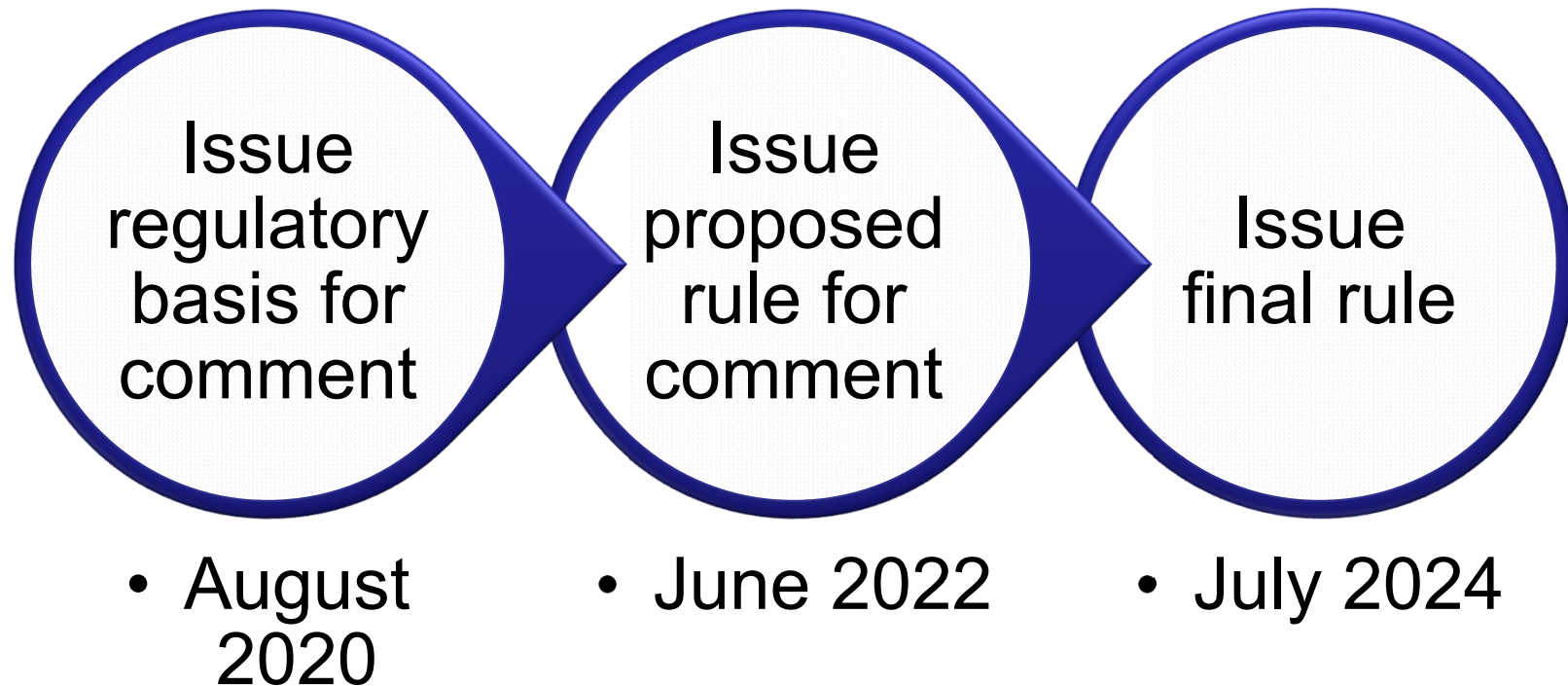
Transformational Items

- As described in Information SECY 19-0084, some changes are considered transformational in nature:
 - Modify DC renewal requirements and expiration date
 - Align the change process for DCs with the 10 CFR 50.59 process
 - Add definitions of Tier 1, Tier 2 and Tier 2* information to Part 52
 - Consider reducing requirements for standardization for certified designs

Next Steps

- Staff will consider your feedback from this meeting
- Develop and issue the regulatory basis for public comment
 - No draft and final regulatory basis will be issued
 - Comments received on the regulatory basis will be considered during the proposed rule stage
- Hold additional stakeholder meetings as needed

Rulemaking Schedule



QUESTIONS?



BACK UP SLIDES



References

<u>Document Title</u>	ADAMS Accession Number/ FR Citation
SECY-19-0084, "Status of Rulemaking to Align Licensing Processes and Lessons Learned from New Reactor Licensing (RIN 3150-AI66)"	ML19161A169
SECY-19-0034, "Improving Design Certification Content"	ML19080A034
"Summary of January 15, 2019 Public Meeting to Discuss the Proposed Rulemaking to Align the Regulations in Parts 50 and 52 to Address Updates to the Licensing Processes and Lessons Learned for Future New Reactor Applications,"	ML19023A046
SECY-15-0002, "Proposed Updates of Licensing Policies, Rules and Guidance for Future New Reactor Applications"	ML13277A420
SRM-SECY-15-002, "Staff Requirements-SECY-15-002-Proposed Updates of Licensing Policies, Rules and Guidance for Future New Reactor Applications"	ML15266A023
"Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants"	50 FR 32138
SECY-89-013, "Design Requirements Related to the Evolutionary Advanced Light Water Reactors," dated January 19, 1989	ML003707947
SECY-90-016, "Evolutionary Light Water Reactor (LWR) Certification Issues and Their Relationship to Current Regulatory Requirements," dated January 12, 1990	ML003707849
SECY-93-087, "Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light-Water Reactor (ALWR) Designs," dated April 2, 1993	ML003708021
Bipartisan Policy Center Report Recommendations on the New Reactor Licensing Process	ML13059A240



Administrative Corrections

10 CFR	Description
§ 2.627	The references to § 2.617 in § 2.629(b) and § 52.83(b) should be to § 2.627.
Part 52 Appendices	Both the ABWR and System 80+ design certification final rules (Part 52, Appendices A and B, respectively) initially correctly referred to "ANSI/AISC N-690." Both the AP600 and AP1000 design cert final rules (Appendices C and D, respectively) incorrectly stated ANSI/AISC-690 (omitting the "N"). 64 Fed. Reg. 72,002, 72,018; 71 Fed. Reg. 4,464, 4,481. Unfortunately, the NRC changed the ABWR and System 80+ references to match the AP600 and AP1000 references in the 2007 Part 52 rulemaking. Correct the reference in Appendices A-D by adding the "N" back into ANSI/AISC N-690
Part 52 Appendix D Section VI.B.6	Part 52, Appendix D, Section VI.B.6 reads "except as provided in paragraph VIII.B.5.f . . ." but the reference is incorrect. It should be "except as provided in paragraph VIII.B.5.g . . ." (rather than VIII.B.5.f).
Part 52 Appendix E Section VI.B.6	Part 52, Appendix E, Section VI.B.6 reads "except as provided in paragraph VIII.B.5.f . . ." but the reference is incorrect. It should be "except as provided in paragraph VIII.B.5.g . . ." (rather than VIII.B.5.f).
Part 50 Appendix J	Under Option B, Subsection IV. Recordkeeping, refers to § § 50.72 (b)(1)(ii) and § 50.72 (b)(2)(i). There is no § 50.72 (b)(1)(ii), only § 50.72 (b)(1). 10 CFR Part 50, Appendix J references 10 CFR Part 52 and 10 CFR 50.54(o) imposes Appendix J as a requirement.
§ 21.3, "Basic component"	Revise definition by deleting text in brackets as follows: "(2) When applied to standard design certifications [under subpart C of part 52 of this chapter] and standard design approvals under part 52 of this chapter,..."
§ 52.43(b)	Correct the following text in 10 CFR 52.43(b) which was not updated when SDAs were renamed to state: "Subpart E of this part governs the NRC staff review and approval of a final standard design."
§ 52.79(c)(2)	Correct as follows: "all terms and conditions that have been included in the final standard design approval will be satisfied...."



Acronyms

ABWR	Advanced Boiling Water Reactor
ADAMS	Agencywide Documents Access and Management System
CFR	<i>Code of Federal Regulations</i>
COL	Combined License
CP	Construction Permit
DC	Design Certification
DCD	Design Certification Document
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OL	Operating License
PRA	Probabilistic Risk Assessment
RB	Regulatory Basis
SOC	Statement of Considerations
SRP	Standard Review Plan
SRM	Staff Requirements Memorandum
TMI	Three Mile Island