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1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

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4 ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

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6 MEETING OF THE FUTURE PLANT DESIGNS SUBCOMMITTEE

7 + + + + +

8 TUESDAY

9 JULY 7, 2009

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11 ROCKVILLE, MARYLAND

12 + + + + +

13 The Advisory Committee met in the Commissioners'  
14 Hearing Room at the Nuclear Regulatory Commission, One  
15 White Flint North, 11555 Rockville Pike, at 1:30 p.m.,  
16 Dennis C. Bley, Chairman, presiding.

17 SUBCOMMITTEE MEMBERS PRESENT:

18 DENNIS C. BLEY, Chairman

19 SAID ABDEL-KHALIK

20 GEORGE APOSTOLAKIS

21 CHARLES H. BROWN, JR.

22 MICHAEL CORRADINI

23 HAROLD B. RAY

24 MICHAEL T. RYAN

25 JOHN W. STETKAR

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DESIGNATED FEDERAL OFFICIAL:

GIRIJA SHUKLA

NRC STAFF PRESENT:

MARK KOWAL

JAMES GASLEVIC

RICHARD LAURA

ERIC OESTERLE

JOHN TAPPERT

ALSO PRESENT:

RUSSELL BELL, NEI

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

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(1:30 p.m.)

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CHAIRMAN BLEY: This meeting will now come to order. This is a meeting of the Advisory Committee on the Reactor Safeguards, Subcommittee on Future Plant Design. I am Dennis Bley, Chairman of the Subcommittee.

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Subcommittee Members in attendance are George Apostolakis, Said Abdel-Khalik, Harold Ray, Charlie Brown, Mike Corradini, Mike Ryan, and John Stetkar.

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The purpose of this meeting is to discuss Draft Regulatory Guide 1.215, also called DG 1204, guidance for ITAAC closure under 10 C.F.R. Part 52 and NEI Document 08-01, Rev 3, Industry Guidelines for ITAAC Closure Process under 10 C.F.R. Part 52.

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The Subcommittee will gather information, analyze relevant issues, and fact, and formulate proposed positions and actions, as appropriate for deliberation by the full committee.

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25

Mr. Girija Shukla is the Designated Federal Official for this evening. The rules for participation in today's meeting have been announced as part of the notice of this meeting, previously

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1 published in The Federal Register on June 15, 2009.  
2 We have received no written comments or requests for  
3 time to make oral statements from members of the  
4 public regarding today's meeting. A transcript of the  
5 meeting is being kept and will be made available as  
6 stated in The Federal Register notice.

7 We request that speakers first identify  
8 themselves and speak with sufficient clarity and  
9 volume so that they may be readily heard.

10 We will now proceed with the meeting and I  
11 will call upon now Mark Kowal of the NRC staff to  
12 begin.

13 MR. KOWAL: Okay, good afternoon. My name  
14 is Mark Kowal. I am the Branch Chief of the Technical  
15 Specifications and ITAAC Branch --

16 COURT REPORTER: I'm sorry, Mr. Chair. I  
17 am having some problems with the audio.

18 (Whereupon, the foregoing matter went off the record  
19 at 1:34 p.m. and resumed at 1:38 p.m.)

20 MR. KOWAL: Good afternoon. My name is  
21 Mark Kowal. I am the Branch Chief of the Technical  
22 Specification and ITAAC Branch in NRO. This  
23 afternoon, the staff and NEI will be presenting to you  
24 Regulatory Guide 1.215 and NEI 08-01, both of which  
25 outline the guidance for ITAAC closure process.

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1           The staff presenting this afternoon  
2 include Mr. Rich Laura, who is the ITAAC Team Leader,  
3 and Mr. Jim Gaslevic, who is a staff member on the  
4 ITAAC team.

5           Additionally, we have several support  
6 staff that have been involved in developing the Reg  
7 Guide in the audience behind us and they may  
8 participate as necessary.

9           I will be presenting a brief overview on  
10 the staff efforts to develop the Reg Guide. Rich will  
11 present an ITAAC overview and discuss regulatory basis  
12 for the guide and Jim will discuss the Reg Guide  
13 itself and give an overview of the public comments  
14 that we received. And Russ Bell from NEI will be  
15 presenting NEI 08-01 guidance. Next slide, please.

16           Before I begin, I just do want to mention  
17 that the staff from the Division of Construction,  
18 Inspection, and Operational Programs has really done  
19 much of the work that went into developing this  
20 guidance, with the support of many other staff in the  
21 Agency. Initially, that was begun under the  
22 Construction, Inspection, and Allegation Branch. Most  
23 recently it is in the Tech Spec and ITAAC Branch, the  
24 division we organized somewhat this past April, and  
25 the ITAAC team responsible for ITAAC closure merged

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1 with the Technical Specification Branch. That is just  
2 some administrative background for you.

3 The development of the Guidance really  
4 began with the ITAAC Closure Working Group. This  
5 group was formed back in the 2007 with the purpose of  
6 reviewing and resolving issues and technical issues,  
7 policy issues associated with ITAAC closure. Part of  
8 the function was to develop guidance such as ITAAC  
9 closure-type letters and the appendices in the Reg  
10 Guide and in the guidance. I have a lot of those  
11 letters listed, which we will talk a little bit more  
12 about that.

13 This was really a multi-disciplinary  
14 group. It involved staff from all divisions in NRO.  
15 Also from OGC, Region II, and NSIR. The meetings  
16 began --

17 CHAIRMAN BLEY: Any reason, you just said  
18 the one region involved? I have heard --

19 MR. KOWAL: Well Region II because of the  
20 involvement in the reactor. Region II is the  
21 headquarters for the Center for Construction. So that  
22 is why the Region II staff. They are pretty heavily  
23 involved in much of the work that we are doing on  
24 ITAAC and the processes and inspection. They are  
25 going to be doing the inspection processes for the new

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1 reactor area.

2 CHAIRMAN BLEY: Okay.

3 MR. KOWAL: The Working Group really began  
4 meetings with stakeholders two years ago in 2007 and  
5 the latest revision of NEI 08-01, which is Region III  
6 captures the work that we have done to date.

7 Today we are going to be discussing Reg  
8 Guide 1.215, which endorses Revision 3 of the 08-01  
9 Guidance. Next slide, please.

10 I think over the past couple of years, the  
11 staff has made significant progress in this area. We  
12 have been working with industry and stakeholders that  
13 has resulted in NEI 08-01 and also in the staff's  
14 preparation of Reg Guide 1.215. I do want to mention  
15 we are preparing a commission paper on ITAAC  
16 maintenance that we planned to send to the Commission  
17 toward the end of August. We are also planning to  
18 send the Regulatory Guide to the Commission in August.

19 We are continuing to work in the area of  
20 ITAAC maintenance, which is Section 8.1 of the  
21 Regulatory Guide. And that will ultimately result in  
22 Revision II NEI 08-01 and the Regulatory Guide. With  
23 that --

24 CHAIRMAN BLEY: Any expected time table on  
25 that?

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1 MR. KOWAL: We are still working on it.  
2 You know, I don't want to put a date on it. I think  
3 we are some months away from doing that.

4 CHAIRMAN BLEY: But is on the order of  
5 months not --

6 MR. KOWAL: It is not weeks. The  
7 Commission Paper that we send up is due at the end of  
8 August. That will discuss where we are, the status of  
9 where we are with ITAAC maintenance.

10 So with that, I would like to turn it over  
11 to Rich Laura, who is going to take us into more  
12 details on the Regulatory Basis and provide an  
13 overview of ITAAC.

14 MR. LAURA: Okay. Thanks, Mark. Good  
15 afternoon to everybody.

16 The purpose of the Reg Guide, essentially,  
17 was to endorse NEI 08-01. Like Mark said previously,  
18 all of the language in the NEI Guide was discussed  
19 with numerous examples during a whole series of  
20 workshops over two years. So, the Reg Guide  
21 essentially is rather to the point and just endorses  
22 the NEI Guide, more or less.

23 What we are trying to achieve is  
24 standardization with different possible licensees. We  
25 had to come up with a common process for ITAAC

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1 closure. And essentially the Guidance in Part 52, you  
2 know, there is a few very specific points, but then it  
3 required a lot of interpretation. And in order to  
4 take that to the next level down and develop  
5 implementing details, and that is, we will eventually  
6 get to the chart. And that is what we tried to  
7 capture here is, how does Part 52 bring everything to  
8 closure for the Commission finding, you know, that you  
9 can begin loading fuel or start plant operation.

10 The NEI Guide 08-01, essentially the  
11 biggest element in there is the 52.99 notification  
12 letters. In the Guidance in the Code, we are going to  
13 review that in a minute, just to show some of the  
14 words is some general terms like "sufficient  
15 information." Then it was left up to the staff to  
16 develop examples and work with industry on how to  
17 implement that. And that is what took probably the  
18 most time.

19 But attached to the guide is 26 specific  
20 examples of ITAAC, you know, and we had different  
21 ranges of them from simple, to moderate, to complex,  
22 as to what would be an acceptable closure letter. You  
23 know, what level of detail. And so that was really  
24 the big product of the NEI Guide. Next slide.

25 It all starts essentially with ITAAC. And

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1 you know, you look at the different subcomponents of  
2 what ITAAC means. You know, you have the ITA, the  
3 inspection, tests, analyses, which is the methodology  
4 of how you perform the ITAAC. And then you have the  
5 acceptance criteria, which is more the result or, you  
6 know, what you look at to see if you completed or  
7 verified that the ITAAC has accomplished what it was  
8 intended to do. And then in the design document, you  
9 have the design commitment, which is the fundamental  
10 engineering requirement that you are trying to  
11 address.

12 In general, just a high level overview,  
13 Region II is responsible for inspecting ITAAC. They  
14 are going to lead that. They have a large staff.  
15 However, on the closure piece, the closure  
16 verification aspect of these letters will be led here  
17 in headquarters. You know, when these letters come in  
18 saying that ITAAC have been completed, it will be the  
19 headquarters staff that does a quick review, a cursory  
20 review, and make sure the letter is complete and makes  
21 sense. And then we will review the inspection  
22 findings and SIPMs and then we will make a  
23 recommendation whether or not to close out those  
24 letters.

25 And then if it is okay to close it out, in

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1 Part 52, you are required to do a Federal Register  
2 notice for either each one or we are evaluating  
3 possibly closing them by families because there are  
4 certain ITAAC that are similar in nature for  
5 inspection purposes. So, we are looking to be  
6 efficient also. So, headquarters plays a big role in  
7 the closure verification piece of ITAAC.

8 MEMBER APOSTOLAKIS: Who is the ultimate  
9 decision-maker?

10 MR. LAURA: For closing the ITAAC?

11 MEMBER APOSTOLAKIS: Yes.

12 MR. LAURA: Well, the licensee is  
13 primarily responsible for --

14 MEMBER APOSTOLAKIS: No, no, no. The guy  
15 who at the end says it is closed. You say will make a  
16 recommendation. To whom? To the executive director  
17 of operations or the Commission?

18 MR. LAURA: Well, at the very end, are you  
19 saying when all ITAAC are done or just one?

20 MEMBER APOSTOLAKIS: No. You are making a  
21 recommendation to whom?

22 MR. LAURA: Right. Well, the  
23 recommendation would be up through the chain. First,  
24 it would go to the office director. And then he in  
25 turn would make a recommendation to the EDO, who then

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1 in turn would, in parallel with industry, you know,  
2 they are going to be making their recommendation as  
3 well. And then we are going to say either we agree or  
4 we have these issues and then it will present all of  
5 that to the Commission.

6 MEMBER APOSTOLAKIS: The Commission is the  
7 ultimate --

8 MR. LAURA: Yes, the Commission makes the  
9 final decision.

10 CHAIRMAN BLEY: The Commission will  
11 actually vote and say, "This is closed."

12 MR. LAURA: Well, at the end, they will  
13 say all ITAAC --

14 CHAIRMAN BLEY: All ITAAC.

15 MR. LAURA: -- are met and it is okay. We  
16 authorize loading fuel. That is all in Part 52. But  
17 it gets a little tedious because for each design you  
18 have a thousand ITAAC. So that is what we are trying  
19 to do, is trying to build a process that can handle  
20 that and one-by-one go through and get the closure  
21 letters, do our review of those, based on inspection  
22 that was done a while ago and then notify the public  
23 by posting a Federal Register notice.

24 MEMBER APOSTOLAKIS: There will be interim  
25 letters, then. ITAAC number 16 is closed.

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1 MR. LAURA: No. No, we would only go up -  
2 - I think you are asking great questions for the  
3 flowchart.

4 MEMBER APOSTOLAKIS: Okay.

5 MR. LAURA: And we will --

6 MEMBER APOSTOLAKIS: I am just trying to  
7 understand --

8 MR. LAURA: Yes.

9 MEMBER APOSTOLAKIS: -- the decision-  
10 making process.

11 MR. LAURA: Right. We don't go really to  
12 the very end, the most important piece, until all  
13 ITAAC are met and completed.

14 MEMBER APOSTOLAKIS: I understand that.

15 MR. LAURA: But you know, it takes a lot  
16 of effort getting and processing each individual one  
17 to make sure that all the right things are done. So,  
18 that is what we tried to capture here.

19 MEMBER ABDEL-KHALIK: I'm trying to  
20 understand the boundary between the Region II  
21 responsibility and the headquarters responsibility.

22 The closure verification, is this nothing  
23 more than a checklist that all the acceptance criteria  
24 had been met?

25 MR. LAURA: Yes. Essentially, at that

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1 point, the activity was probably completed a long  
2 while ago. The NRC inspection staff has done direct  
3 inspection, performance based inspection. And now we  
4 are in sort of a closure letter.

5 The goal isn't to get the closure letter  
6 and try to identify new inspection points. The goal  
7 is more to read it, make sure it is logical, make sure  
8 we say okay, that is good, and then review the  
9 inspection results and SIPMs. And then if everything  
10 looks good, then we say okay, we are going to close  
11 that one.

12 MEMBER ABDEL-KHALIK: And I am also trying  
13 to understand the meaning of the word inspection.

14 MR. LAURA: Right.

15 MEMBER ABDEL-KHALIK: The word inspection  
16 imputes within it verification that the acceptance  
17 criteria had been met.

18 MR. LAURA: True.

19 MEMBER ABDEL-KHALIK: So what is left is  
20 nothing more than just a checklist.

21 MR. LAURA: Essentially, yes. And that is  
22 why when we mention it should be an abbreviated  
23 review, when we get that letter, we shouldn't create  
24 thousands of hours of work at that point. All the  
25 real physical work is done. The performance-based

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1 inspection has been completed. It should be, we are  
2 thinking, you know, 30 minutes, an hour, you know,  
3 does the letter make sense? Are there any outstanding  
4 findings? Close it.

5 CHAIRMAN BLEY: I've got a little, I  
6 think, bad impression out of this last discussion. My  
7 understanding is the inspection, the I in ITAAC is  
8 inspections done by the applicant.

9 MR. LAURA: Yes, that is true.

10 CHAIRMAN BLEY: Then NRC does some  
11 inspection. And I'm not sure, I think that is what  
12 Said was asking about. What is the NRC inspection?  
13 Is it sampling, looking at the same thing the  
14 applicant did or is it an inspection of the paperwork  
15 or is it an actual inspection of the plant? Is that  
16 all laid out?

17 MR. LAURA: Yes.

18 CHAIRMAN BLEY: Is that designed at this  
19 point?

20 MR. LAURA: Yes. If you look at the  
21 Inspection Manual Chapters 2503 and 04 and I believe  
22 we briefed ACRS about two years ago in a  
23 prioritization scheme, we touched on some of this at  
24 that time. And essentially, Region II leads  
25 inspections. They are going to be, you know, have

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1 five or seven inspectors onsite directly inspecting,  
2 every day, attending the planning meeting. And they  
3 are looking for, you know, when are these structure  
4 system components, when is that physical work going to  
5 occur that is related to an ITAAC? And then they are  
6 going to have the ability to go actually physically  
7 watch and inspect.

8 Now, the licensee --

9 CHAIRMAN BLEY: They may be watching one  
10 of the applicant's inspections in the process.

11 MR. LAURA: Yes, true.

12 MEMBER APOSTOLAKIS: Are there any  
13 inspections that do not involve ITAAC?

14 MR. LAURA: Yes. Yes, that is a good  
15 question.

16 MEMBER APOSTOLAKIS: Can you give an  
17 example?

18 MR. LAURA: Construction processes and  
19 programs in Inspection Manual Chapter 2504, that is a  
20 whole other part of the baseline program that looks at  
21 like say EQ or fire protection. The more traditional  
22 inspections where the Region has leeway to determine  
23 what they are going to look at, it is not as  
24 prescribed out as ITAAC. ITAAC are a set of a  
25 thousand of the most important things that NRC or that

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1 the licensee should verify and in turn, NRC will  
2 inspect about one-third or a little bit more of those  
3 ITAAC.

4 MEMBER APOSTOLAKIS: Now, all of these  
5 inspections are subjected to this prioritization  
6 scheme that we discussed.

7 MR. LAURA: The ITAAC portion only.

8 MEMBER APOSTOLAKIS: Only?

9 MR. LAURA: Yes.

10 MEMBER APOSTOLAKIS: Not the construction?

11 MR. LAURA: No. Now, that doesn't mean --

12 MEMBER APOSTOLAKIS: Construction is 100  
13 percent?

14 MR. LAURA: I'm not sure.

15 MEMBER CORRADINI: The impression we got  
16 whenever we all last saw each other about this, the  
17 impression we got last time was, that was kind of at  
18 the discretion of the inspectors. The impression,  
19 unless I misunderstood, is that the onsite  
20 construction inspectors have wide leeway to decide  
21 what to inspect on any given day and they would do it  
22 based on processes.

23 For example, if they are in the  
24 containment building, they may look at six of these  
25 things, which apparently are unrelated but they are

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1 all in the building and we are going to look at  
2 various --

3 MEMBER APOSTOLAKIS: They would not  
4 prioritize or they will prioritize --

5 MEMBER CORRADINI: On the non-ITAAC, my  
6 understanding was on the non-ITAAC ones, they would  
7 prioritize based on their own experience and  
8 availability at the time.

9 MR. LAURA: Right, exactly. Okay, next  
10 slide, please.

11 MEMBER BROWN: Excuse me. I want to go  
12 back to one of your earlier statements in that you  
13 said the closure letter comes in, you all review it,  
14 you write a summary letter whatever to the EDO, and  
15 they get collected and then handled all -- sorry.

16 Thank you, Girija. Let me start again  
17 here. Where did that thought go? Should I repeat  
18 that? No, I won't.

19 But then at the same time, you said when  
20 it goes to the Commission, there is a separate  
21 industry recommendation that sounds like something  
22 bypasses the NRC staff, goes from industry directly to  
23 the Commissioners with their recommendation. That  
24 seems to be that is un-reviewed, unseen, whatever.  
25 What does it consist of and why is there something in

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1 addition to the recommendation to --

2 MR. LAURA: Right.

3 MEMBER BROWN: -- the recommendation they  
4 submitted to the staff and then it gets processed up  
5 to the Commissioners and they act on it.

6 MR. LAURA: Right. No, that is a great  
7 question. And essentially during our workshops, one  
8 of the challenges we had is once several ITAAC are  
9 closed, it may be several years before you get to the  
10 endpoint. And in that period, you know, sometimes  
11 stuff happens. They may need to work on that  
12 equipment. There may be some damage that occurs or  
13 some change that occurs to something that has been  
14 previously closed.

15 So, industry has offered, you know, with  
16 NEI's suggestion, they volunteered at the very end due  
17 to the length of that time, to submit a letter, I  
18 think it is called all complete letter. And what that  
19 does is give us another data point of confidence that  
20 right before we are getting ready to go up to the  
21 Commission, that the licensee is signing, the head  
22 person at the site, that all ITAAC are met.

23 So to us, that was a very big addition, in  
24 addition to all of the other information that we have.

25 Only due to the duration of the project.

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1                   MEMBER BROWN: But the way you stated it,  
2 it makes it sounds like it bypasses the staff and goes  
3 directly to Commission staff or something, as opposed  
4 to --

5                   MR. LAURA: Well, we would get it  
6 simultaneously. But I think the idea is it is sort of  
7 like an oath that they are stating to the NRC  
8 formerly, that all ITAAC acceptance criteria are met.

9                   And that is very significant. And that will mean a  
10 lot to the Commission and it will be very timely. And  
11 that is an extra data point in addition to what we are  
12 doing here.

13                   MEMBER BROWN: There is nobody that --

14                   MR. LAURA: Well, --

15                   MEMBER BROWN: You are just taking that --  
16 you take that at faith, in other words. Is that it?  
17 I'm not questioning. That is what it sounds like.

18                   MR. LAURA: Well, we always trust but  
19 sometimes we verify or confirm. Right? I mean, we  
20 have enough other --

21                   MR. GASLEVIC: I think we need to  
22 separate what I think ACRS is getting to towards the  
23 103(g) finding versus the individual ITAAC closure  
24 letters and the verification there by staff.

25                   So the letter, the all done letter and the

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1 recommendation by the EDO to the Commission is at the  
2 end of the process for the 52.103(g) finding to be  
3 made by the Commission. But as the licensees complete  
4 each ITAAC, they will submit those closure letters.  
5 Those closure letters then will be matched up with  
6 inspections that Region 11 has done, will be reviewed  
7 for sufficient information and these things by staff  
8 here at headquarters. Those individual letters will  
9 basically close out an ITAAC, will consider it closed.

10 So, that internal process is still being  
11 finalized. It is still in development. There are  
12 potential plans for having an internet-based matrix on  
13 where we can follow, what ITAAC had been submitted by  
14 a licensee, where it is in the review process by  
15 staff, these things. But that internal process is  
16 being developed.

17 CHAIRMAN BLEY: I have somebody up here  
18 who wants to speak.

19 MR. TAPPERT: Yes. I'm sorry. My name is  
20 John Tappert. I am the Deputy Division Director for  
21 Construction and Inspection Operational Programs with  
22 these folks here.

23 I just want to make clear that when we  
24 were talking about a letter at the end from the  
25 licensee saying all the ITAAC are complete. That is

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1 not to bypass the staff to go directly to the  
2 Commission.

3 The process is the licensees are  
4 responsible for completing 100 percent of the ITAAC  
5 and submitting a letter that documents with sufficient  
6 information that they are complete.

7 We have Region II doing inspections in the  
8 field. We are going to do a sample of those in  
9 process during the five years of construction. When  
10 that letter comes to us, we are going to look at the  
11 letter that comes in. We are going to look at the  
12 inspection record and then the NRC staff is going to  
13 make a determination that the ITAAC is complete for  
14 our purposes. And we are going to publish that in the  
15 Federal Register. And that is going to be done in a  
16 piece-wise fashion throughout the life cycle of the  
17 construction project.

18 When that last ITAAC is complete, the  
19 licensee is going to submit that. They are also going  
20 to send us a letter saying that they are all complete.

21 And that is going to help the staff bolster our  
22 recommendation, which is going to go through the EDO  
23 to the Commission, with the recommendation that the  
24 Commission make the finding that all of the ITAAC are  
25 met. So, it is not a question of bypassing us but

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1 just supporting, you know, providing us additional  
2 information as we make that recommendation going  
3 forward.

4 MEMBER BROWN: Okay, thank you.

5 MEMBER STETKAR: Richard, let me. It will  
6 help me think about the process as you go through it.

7 Within the context of this Reg Guide, are  
8 DAC 100 percent equivalent to ITAAC?

9 MR. LAURA: Yes, DAC is discussed in the  
10 Guide and DAC is a special type of ITAAC. I am sure  
11 you have heard that. And there are three options  
12 resolving DAC and those are discussed.

13 MEMBER STETKAR: That is a timing issue.  
14 I am thinking about the actual closeout process for  
15 DAC.

16 MR. LAURA: Right. Well --

17 MEMBER STETKAR: This Reg Guide should  
18 apply to DAC equally to ITAAC. Is that correct?

19 MR. LAURA: It discussed DAC but it was  
20 not the primary purpose of the NEI guide. We have a  
21 separate working group that is looking at DAC. As you  
22 know, DAC is a very challenging issue.

23 MEMBER STETKAR: Will there be a separate  
24 Regulatory Guide that specifically addresses closeout,  
25 review, and closeout of DAC?

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1 MR. LAURA: Well, that will be handled in  
2 the inspection manual chapter, how to inspect DAC.

3 MEMBER APOSTOLAKIS: But the closure.

4 MR. LAURA: Right.

5 MEMBER APOSTOLAKIS: You seem to have a  
6 very systematic process for ITAAC.

7 MR. LAURA: Right.

8 MEMBER APOSTOLAKIS: I think the question  
9 is, do you have something similar for DAC.

10 MR. LAURA: Right. Well, DAC have ITAAC.  
11 And those ITAAC that are associated with DAC will go  
12 through this process.

13 CHAIRMAN BLEY: Well let me push a little  
14 bit behind John because I kept a note. Back in the  
15 beginning Mark talked about the fact that NEI 08-01  
16 Section 8.1 on maintaining the validity of ITAAC  
17 required some revision. But you didn't mention  
18 anything about 8.3, which is the section on DAC. Now,  
19 if there is a separate working group, is that going to  
20 involve a revision to the NEI document or will that be  
21 a revision to the Reg Guide or how is that going to be  
22 handled? And maybe the answer is waiting here at the  
23 podium.

24 MR. OESTERLE: I haven't got the answer to  
25 that question but -- sorry. Eric Oesterle, NRC staff.

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1           But what I can tell you is that the DAC  
2 closure process envisions several different ways of  
3 closing out DAC. Part of that vision is for the staff  
4 at headquarters to review the completed design  
5 information to close out that DAC.

6           And I would offer that if that DAC is  
7 closed out after the license is issued, we would also  
8 expect to see an ITAAC closure letter for that aspect  
9 of the DAC closure.

10           Did that help?

11           MEMBER STETKAR: I understand that  
12 process. For example, if I am designing -- I will  
13 use a control room design for example. If I am  
14 designing a control room, the layout of the main  
15 control panels, there should be an ITAAC to verify  
16 that indeed, the as-built version of that design  
17 indeed was constructed and installed, according to the  
18 original design documents, the drawings and whatnot.

19           So I understand that portion of ITAAC  
20 related to DAC. What I am interested in is the  
21 closure of the review of that actual design because at  
22 the design certification stage, for example, for  
23 instrumentation and control, there is simply a set of  
24 requirements. You will do something according to some  
25 criteria. Well, the implementation of those criteria

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1 could be accomplished in any number of different ways  
2 that are better or less better, let me keep positive  
3 here, ways of implementing some fairly generic  
4 criteria.

5           Where in the DAC closeout process is the  
6 review of the actual design? Not the implementation  
7 of that design but in the actual installation, which  
8 is verifying that indeed, the drawing said that I  
9 should have a display that is one inch by one inch.  
10 And indeed, I went to the plant and saw that that  
11 display was one inch by one inch.

12           MR. OESTERLE: Well, there are several  
13 aspects to the answer to that question. And part of  
14 it is that the COL applicants that are referencing  
15 design search that include DAC for digital I&C for  
16 control and design for piping, they are looking at  
17 including license conditions to notify us at an  
18 appropriate time in advance of the completion of their  
19 design, so that we can schedule our resources to  
20 review those designs, audit those designs.

21           Because the premise here is that by using  
22 DAC, it is an approved design process and that the  
23 process has limits on it such that the inputs that you  
24 put into this process provide reasonable outcomes that  
25 will satisfy the staff in terms of the adequacy of the

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1 design.

2 MEMBER CORRADINI: So let me, if in fact -  
3 - I think, I understood what you said. Let me say it  
4 back to you a bit differently.

5 So let's say there is, just to pick  
6 numbers, there is a thousand ITAACs of which some  
7 small fraction, I hope small, are these DACs, special  
8 ITAACs. Is it the intention of staff to have 100  
9 percent coverage from the moment you have defined the  
10 attribute and that is the DAC to make the design and  
11 that is the actual design to verify that that design  
12 actually got built as it was designed?

13 In other words, I am okay with statistical  
14 sampling about stuff that was designed. I am not so  
15 sure I am personally okay with statistical sampling of  
16 design attributes. So, is staff doing a 100 percent  
17 coverage of all of the DACs for closure?

18 MR. OESTERLE: My understanding is yes,  
19 that the DAC is not included in the smart sampling  
20 methodology for the other ITAAC and that those designs  
21 that are included in DAC will be looked at 100  
22 percent. And it will be by the headquarters staff and  
23 not by construction inspectors. That is my  
24 understanding.

25 MEMBER STETKAR: I would like to see that

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1 because the reading both in NEI 08-01 and this Reg  
2 Guide, I could convince myself that if DAC were not  
3 closed prior to issuance of the COL, the DAC closure  
4 would then fall into the engineering design  
5 verification process, which indeed is a sampling  
6 inspection audit-type process. It is that for  
7 example, when the COL is issued, if no DAC were closed  
8 at that time and no design information had been  
9 reviewed, it sounded like indeed it would be an  
10 inspection audit-type function, rather than, as Mike  
11 said, 100 percent design review.

12 MR. OESTERLE: My understanding is that  
13 the staff's intent is that all of the DAC areas be  
14 looked at 100 percent. And I will ask Mr. Tappert to  
15 verify.

16 CHAIRMAN BLEY: I would like to hear that.  
17 I mean, we had another meeting where we have been  
18 told exactly that. More recently, that is what we  
19 have been hearing.

20 And we have heard that in Region II,  
21 somebody is developing detailed guidance to address  
22 DAC closure. And I guess I am back to my first  
23 question. If that is so, when do we expect to see  
24 that and where will that Guidance reside? Will it  
25 make it into one of these two documents we are

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1 reviewing today or will it be a separate document that  
2 somehow will overextend these beyond what they  
3 actually say, which is, I think, what Mr. Stetkar was  
4 talking about.

5 MEMBER BROWN: Let me amplify that for a  
6 minute. If you look at the Reg Guide, this is on your  
7 subject, it doesn't, if somebody else can tell me, I  
8 didn't see the word DAC in the Reg Guide at all. It  
9 is just ITAAC.

10 In NEI 08-01, there is a Section 8.3 which  
11 covers design acceptance criteria and three  
12 considerations, one of which is closure after COL  
13 issuance. In that, it refers to, it becomes inspected  
14 if it is after COL issuance, as part of the  
15 engineering design verification process per Chapter  
16 2504.

17 Now, I don't know what is in 2504, whether  
18 it is sampling or whether it is non-sampling or  
19 whether it is 100 percent, I have no idea. Except,  
20 relative to what you just said and what John just  
21 said, it is not clear.

22 MR. LAURA: Right. And essentially the  
23 families of ITAAC that are similar, for each family,  
24 for each design, right now we are trying to develop,  
25 and the region has the lead for this, detailed

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1 inspection strategies. How to inspect those ITAAC.  
2 And one consideration will be of DAC. You know,  
3 because like Eric stated and others and what you heard  
4 previously, the goal is to do as much review and look  
5 at DAC, as we would have done had that information  
6 been available before. That only seems to make sense  
7 to us.

8 So, part of it may be through EDV  
9 inspections, engineering design verification  
10 inspections, which are like a team inspection. And  
11 clearly, a lot of the expertise will come in these  
12 areas from headquarters. Headquarters staff will  
13 provide the technical support to the region in that  
14 time period.

15 And another thing I would like to mention,  
16 too, is when you look at the DAC ITAAC, there are  
17 different parts to them. I know you mentioned the as-  
18 built portion but there is also a portion of the ITAAC  
19 that is aimed at the design piece of it. And that is  
20 still an ITAAC and it will still go through this  
21 process. And it was prioritized by the prioritization  
22 scheme that we had.

23 MEMBER APOSTOLAKIS: It was or was not?

24 MR. LAURA: Was. And in fact, many of  
25 those are risk significant and are targeted. It only

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1 makes sense. Because if you look at the systems that  
2 you are talking about in DAC, you know, those are  
3 major front line safety systems that we plan to  
4 inspect. It just requires a little more planning, you  
5 know, since there is some piece of the design that  
6 hasn't been finished yet. But that won't get lost as  
7 we go through the process.

8 MR. TAPPERT: And I was just going to  
9 build on what Rich said. Fundamentally, the DAC are  
10 ITAAC. So they are covered by the Reg Guide here. To  
11 the extent, by definition, you know, when we issue the  
12 license, the DAC are sufficiently well defined for us  
13 to make our reasonable assurance finding. And what  
14 the inspection program is going to confirm that the  
15 final design meets those acceptance criteria.

16 So it is an inspection activity. It is  
17 going to be supported very heavily by our technical  
18 staff here. But all of the DAC will be inspected as  
19 part of the construction process.

20 In fact, we are dealing with some issues  
21 right now where people want to get a head start on  
22 that and we are trying to figure out what the right  
23 mechanism is to maybe review some of that material  
24 through topical reports or some other mechanism to  
25 support the ultimate ITAAC closure, once the license

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1 is issued.

2 CHAIRMAN BLEY: Would you say nothing you  
3 have just said, John, contradicts what Eric told us a  
4 few minutes ago?

5 MR. TAPPERT: I would hope not.

6 CHAIRMAN BLEY: Good. Okay, because I  
7 don't want to misinterpret between the two of you.

8 MR. TAPPERT: Okay.

9 MEMBER CORRADINI: So just in the three  
10 areas that DAC is identified as needed because of  
11 evolving designs, etcetera, in piping, human factors  
12 and instrumentation, do you guys have like sample  
13 examples that you work through to say, aha, this has a  
14 certain characteristic and this is how we are going to  
15 do this one and this is how we are going to do that  
16 one?

17 I am too much of an engineer. I want to  
18 see some empirical examples that give me a good  
19 feeling that how this is all going to play out.

20 MR. TAPPERT: I know in the human factors  
21 area, we are looking for detailed action plans as part  
22 of the DAC. And so that if you execute those action  
23 plans, you are going to come up with a design which  
24 the staff is going to find, has found acceptable.

25 MEMBER CORRADINI: So okay. I am not

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1 enough of a human factors person to understand, to  
2 appreciate what you just said if it is responsive to  
3 what I just asked. So let me try this one, since  
4 Charlie tortures me about I&C.

5 So, if one of the DAC says I must show  
6 independence of for reactor protection or for  
7 instrumentation control and reactor protection is a  
8 design, is a system where this must be done and that  
9 is a design attribute, which I think is kind of close  
10 to a DAC, and you walk through a set of things. Okay,  
11 if the design looks like this, this is what we are  
12 going to inspect. If the design is then built like  
13 this, this is what we are going to inspect and  
14 analyze. Have you done that for certain systems so  
15 you almost have some preconceived notions of how you  
16 would walk through the complete process?

17 MR. LAURA: I believe the I&C staff, which  
18 was heavily involved in I&C DAC, I know the branch  
19 chief, you have interacted with them quite a bit on  
20 this and they have the lead in this area and they  
21 developed a life cycle of, you know, how to design the  
22 software, how to build it, what parts of the hardware,  
23 and they are working with industry, you know, because  
24 some of this isn't fully developed at this point.

25 So, they are trying to bound it. They are

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1 trying to identify how we are going to review the  
2 engineering aspects to assure ourselves that it is  
3 safe and meant to operate as intended.

4 And then on top of that, you have the as-  
5 built portions and the ITAAC will go through this  
6 process and they will be inspected.

7 MEMBER APOSTOLAKIS: Charlie, isn't that  
8 the NUREG we reviewed recently?

9 MEMBER BROWN: That was on diversity  
10 strategies.

11 MEMBER APOSTOLAKIS: Yes. We reviewed  
12 that a long time ago.

13 MEMBER BROWN: I just had discussion today  
14 with I&C guys on a particular project on the issue of,  
15 since you were such a great straight man, on  
16 independence and how often do you develop a DAC that  
17 reflects that independence. We spent about an hour  
18 going through this. It is really not clear because  
19 you can't test for independence. You have to  
20 understand interactions, what feeds what, the type of  
21 data that is going here and there and all this other  
22 type of stuff.

23 So it requires, even though you have a  
24 concept which may be laid out in the DCD chapter to  
25 reflect what you mean, up to this point, they have not

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1 actually stated what they meant in any one of them.  
2 It has been very, very ambiguous and amorphous.

3 So it was interesting and we laid out a  
4 number of, or we discussed, or I told them three or  
5 four different areas that create difficulties relative  
6 to software systems. Not the fact that it is software  
7 but the fact of the data isolation or independence  
8 that you don't have with software based digital  
9 systems as opposed to analogue systems.

10 But to answer your question, it is really  
11 mushy right now in terms of what the DAC is. They  
12 don't know. And this particular licensee is  
13 developing supposedly, based not on what we saw last  
14 time but an improved version of DAC. So it is going  
15 to be up on the table again for looking at it.

16 I am not sure that this question has been  
17 answered.

18 CHAIRMAN BLEY: I don't think so but I  
19 think we are going to have to --

20 MEMBER BROWN: Yes, that is fine. I'll  
21 stop.

22 CHAIRMAN BLEY: -- move things along. I  
23 have just, well, we have two quick things to say, one  
24 from me. I like the process things I have seen but  
25 process isn't substance in and of itself in the

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1 detailed level. I have heard things that say these  
2 DAC are going to, the inspection will essentially be  
3 equivalent to a design level review and that makes me  
4 happy. That tells me the details will get looked at  
5 but they want to see where they fit.

6 MEMBER APOSTOLAKIS: I have a question on  
7 an earlier statement. You said Richard that  
8 construction-related inspections will not be  
9 prioritized. And I don't understand that. Why not?

10 MR. LAURA: There will be -- there is two  
11 types of -- we have the baseline program. The one big  
12 chunk is ITAAC and those are all very specific points  
13 that you go and you can plan and see. And then you  
14 have the other side, which is almost as big, where you  
15 look at all the construction processes and programs,  
16 the traditional inspection and you have inspection  
17 procedures for all of those.

18 And in those, you know, we are heavily  
19 risk informed. How we select our targets and --

20 MEMBER APOSTOLAKIS: But you are not using  
21 the prioritization --

22 MR. LAURA: No.

23 MEMBER APOSTOLAKIS: -- methodology and I  
24 don't understand why not. What is risk informed?

25 MR. LAURA: Well, they may look at the

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1 data. You know, in other words, if it is available as  
2 part of selecting a sample but it is not through the  
3 same process that was used for ITAAC.

4 MEMBER APOSTOLAKIS: And the question is,  
5 why not. To me, the method was general enough.

6 MR. TAPPERT: The ITAAC are rank ordered  
7 as a discreet population. The other inspections we  
8 are talking about tend to be more programmatic. If  
9 you are looking the quality assurance program, if you  
10 are looking at their corrective action program, their  
11 program that they use and they closed that ITAAC. So  
12 it is a programmatic inspection. When you look at  
13 samples within that program, you know, I think you are  
14 going to use inspector judgment. I don't know that we  
15 have any specific risk-informed elements of that. But  
16 I mean, it is more of a programmatic approach as  
17 opposed to a discreet list of the population of ITAAC  
18 samples that were ranked.

19 MEMBER APOSTOLAKIS: Again, that is a  
20 statement of fact. The question is why. But that is  
21 okay.

22 CHAIRMAN BLEY: I think we can go ahead.  
23 We have got about two-thirds of the slides left and  
24 almost two-thirds of the time. So give it a shot.

25 MR. LAURA: Okay, I am going to try to

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1 move faster and try to get to the flowchart that seems  
2 to tie all of this together. But I will just touch on  
3 a few points in Part 52.99 which was sort of the  
4 starting point for this.

5 You know, on page ten, it talks about  
6 ITAAC and the purpose. And the purpose is to make  
7 sure the facility has been constructed as designed,  
8 essentially. Next slide.

9 This is right out of the rule and in --

10 CHAIRMAN BLEY: Would it be fair to say  
11 that the bulk of the ITAAC, leaving DAC aside, are  
12 pretty much like previous kinds of acceptance  
13 inspections, except they are focused on the high-risk  
14 issues, the things that came out of the design so that  
15 it is nothing really new, it is just organized a  
16 little differently?

17 MR. LAURA: Well, it is organized a lot  
18 more efficient and effective.

19 CHAIRMAN BLEY: Okay, go ahead.

20 MR. LAURA: On this slide, what is  
21 important, now (c)(1) -- there is two parts to 52.99;  
22 (c)(1) deals with completed ITAAC. That means that  
23 the physical work has been performed, NRC has  
24 inspected, if it was a targeted inspection. And the  
25 licensee then is going to send us a notification

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1 saying the ITAAC has been completed. And that is a  
2 closed ITAAC. And the guidance and the words and the  
3 rule, it talks about, it has to have sufficient  
4 information. And we are going to build on that in the  
5 next few slides.

6 Go to the next slide. This is the (c)(2),  
7 which is the other part of the rule and this is a  
8 little confusing. (C)(2) deals with what is termed  
9 uncompleted ITAAC. And at a certain point in the  
10 project when you get close to starting getting ready  
11 for hearing purposes, there is a line that gets drawn  
12 and it is no later than 225 days before the scheduled  
13 fuel load date. At that point in time, all of the  
14 ITAAC that are not closed, the licensees have the  
15 burden to submit a report on those as well and tell us  
16 in those what has been completed, what will get  
17 completed, and a general schedule.

18 And that notification is rather predictive  
19 in nature. And the purpose of that one is more for  
20 the hearing purposes, to allow that a hearing notice  
21 can go out. And then later, after that, as the  
22 physical work is completed for those ones, they will  
23 submit another letter that will be a completed ITAAC  
24 letter.

25 So that is a little wrinkle and we will

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1 cover that in the flowchart as well.

2 MEMBER CORRADINI: So, I have a question  
3 that we were conversing on. So the 225 is a number  
4 chosen just to give enough time for if somebody asked  
5 for a hearing, a hearing can be called with enough  
6 notification. Is that where the 225 comes from? That  
7 is like nine months. Okay?

8 So would one expect that nine months  
9 before the end of the construction all the DACs would  
10 be completed?

11 MR. LAURA: We can't answer that at this  
12 time.

13 MEMBER CORRADINI: Well, I mean --

14 MR. LAURA: Hopefully the majority --

15 MEMBER CORRADINI: If you asked the  
16 industry, I am nine months before I want to load fuel.  
17 Wouldn't I expect all the DACs to be completed?

18 I am going somewhere with this, as you can  
19 imagine.

20 MR. LAURA: Okay.

21 MR. OESTERLE: Eric Oesterle from the  
22 staff. I can't answer that question but I want to  
23 provide a little bit more illumination on the 225 day  
24 letter.

25 It is almost like a status letter and it

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1 is for the public and it is to provide the information  
2 on the record on what ITAAC have not yet been  
3 completed but it provides information from the  
4 licensee on what plans they have to complete those  
5 ITAAC on what schedule and in accordance with what  
6 procedures. They are going to have to provide some  
7 description of how they plan to complete those ITAAC  
8 and give some sense of their ability to meet the  
9 acceptance criteria.

10 MEMBER CORRADINI: Okay but -- okay. But  
11 the reason I just picked that number because you know  
12 you might argue that five years before you load fuel,  
13 some of the highly evolving and changing design stuff  
14 you don't want to pick. But nine months before I load  
15 fuel, one might argue that the highly evolving and  
16 changing things had evolved, have changed, they have  
17 stopped, I have decided.

18 So, I am kind of looking for at what point  
19 you say okay all of the things that are, as you can  
20 tell, the members of the committee might have some  
21 uneasiness about, you create some certainty. Has  
22 staff thought about some date other than fuel load for  
23 certainty of the things that are uncertain.

24 In other words, would it not be  
25 appropriate that sometime within the COL period, DACs

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1 have to be completed? I mean, the conservative parts  
2 of us might say at the start of COL but others might  
3 think that is a bit too early. But it would seem to  
4 me that -- I am just trying to think through this.

5 MR. LAURA: DAC is a major policy issue  
6 and I think there has been several, Eric can correct  
7 me on this, but there has been several papers that  
8 have gone up to the Commission and come down. And it  
9 is a topic that is continuing to be refined and  
10 especially in the I&C area, which is probably the  
11 primary purpose of DAC.

12 So, there is no time limit that exists  
13 that says all DAC has to be done at this point prior  
14 to 225 days before. The drop dead date would be when  
15 all ITAAC are met.

16 MR. OESTERLE: Eric Oesterle from the  
17 staff again. I think what you are asking, Dr.  
18 Corradini, why didn't we set a time prior to fuel load  
19 in which all the ITAAC need to be met.

20 MEMBER CORRADINI: Or at least the ones  
21 that are special.

22 MR. OESTERLE: But they are all special.

23 MEMBER CORRADINI: Well but --

24 MR. OESTERLE: By their very nature, ITAAC  
25 are all special.

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1                   MEMBER CORRADINI: -- if I just push back  
2 a bit about this. These are special because instead  
3 of being a finished design, they are a set of  
4 attributes that a design is being designed to. And at  
5 some point, you can't design anymore. You have got to  
6 built it and put it in. And that ain't at fuel load.  
7 That is at least months before, maybe a year before.

8                   So that is where I am kind of, logic just  
9 says the design has got to be done. So that is my  
10 question.

11                  MR. OESTERLE: I misunderstood your  
12 question.

13                  CHAIRMAN BLEY: Richard?

14                  MR. BELL: Let me try, Dr. Corradini. I  
15 am Russell Bell with NEI. I will speak with you  
16 later, after the break.

17                  I think I might be in a better position to  
18 say what the staff is not able to say. They don't  
19 know when the DAC is going to be completed. It really  
20 has nothing to do with the 225 days. It does have  
21 some of the DAC involve completion of design  
22 information, NRC review of that information. And  
23 acceptance of that information.

24                  And those are steps in a process that  
25 necessarily have to come as soon as possible, if we

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1 are in the construction phase. Because as you  
2 observed, other things need to follow from that. You  
3 can't have you digital I&C design wide opened and  
4 unresolved, you know, a matter of months before you  
5 expect to load fuel.

6 So, while I don't know exactly when DAC  
7 would be closed either, I can say we recognize that,  
8 and take I&C DAC, it would be reasonable to expect  
9 that that ITAAC would be closed early, rather than  
10 late in the construction process, so that there is  
11 time for the licensee to provide the information needs  
12 to see, the NRC to review it and find it acceptable.

13 Once that is done, then we send the formal  
14 closeout letter that Rich has been talking about. And  
15 that may leave some, in the case of I&C, that may  
16 leave some V&V type kick the tires ITAAC for later  
17 after the design is installed. But the design process  
18 and the evolution and change, you know, that should  
19 have been resolved early. That is how we think the  
20 process will play out.

21 MEMBER APOSTOLAKIS: So the way I  
22 understand it is that this is really an issue for the  
23 licensee, the applicant. It is an issue for the  
24 applicant to decide how early to complete a DAC. It  
25 is not the regulator's job. Because as you say, they

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1 will need some time to implement and so on. So let  
2 them decide when to do it.

3 MEMBER CORRADINI: But from a logic  
4 standpoint, it seems that no later than fuel load  
5 seems a bit late.

6 MEMBER APOSTOLAKIS: Well that is their  
7 business.

8 MEMBER CORRADINI: I mean, they are taking  
9 a risk.

10 MEMBER APOSTOLAKIS: They are taking a  
11 risk. Your staff will still have to review it.

12 MEMBER STETKAR: My only concern is from a  
13 legalistic sense that if after the issuance of the  
14 COL, if DAC then suddenly becomes strictly an  
15 inspection audit type function, rather than a more  
16 comprehensive review function as is kind of laid out  
17 in the process, that issuance of the COL with simply  
18 procedure-related, criteria-related DAC without an  
19 actual design, might fall into a different Agency  
20 inspection review context, regardless of what we have  
21 been hearing.

22 We have been hearing things that indeed  
23 the Agency expects to review the DAC fully, that it is  
24 going to be a headquarters type function. I haven't  
25 seen any assurance in writing that that process is

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1 going to be carried forward that way. And in fact, I  
2 see a few things in writing that lead me to some  
3 uneasiness about that. That is the concern.

4 CHAIRMAN BLEY: I think we have got that  
5 concern across and you will probably hear about it  
6 some more but maybe we can move ahead.

7 MR. OESTERLE: One last thing on that  
8 notion. Eric Oesterle from the staff. There was some  
9 thought about this and as Russ elaborated, and I am  
10 just going to sum it up, the practical considerations  
11 of completing the design so that you can get on with  
12 the construction of the plant, in terms of priority,  
13 really overrode setting any kind of regulatory time  
14 constraint on completing the DAC.

15 I mean, there are some practical  
16 considerations in terms of having digital I&C  
17 completed so that you can get your simulators built so  
18 that you can train the operators. Now, there is a  
19 regulatory requirement for having operators trained,  
20 you know, a certain amount of time before you load  
21 fuel. But other than that, it was the practical  
22 considerations of completing the design and  
23 constructing a plant that overrode any kind of time  
24 constraints that we could put in via the regulations.

25 CHAIRMAN BLEY: Thanks.

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1 MR. LAURA: Okay, moving on, I am going to  
2 skip to the flowchart. The next four or five slides  
3 touch just a little bit more points on sufficient  
4 information and reasonable person. And we will talk  
5 more about that.

6 CHAIRMAN BLEY: That could engender a lot  
7 of discussion so let's go ahead to the flowchart.

8 MR. LAURA: Okay. This flowchart starts  
9 here at this column. Each block has a number, except  
10 the first one. We call that the hopper. That is the  
11 orange symbol. That is where one ITAAC closure letter  
12 comes in. And if you look on the back of it, on the  
13 chart, you have notes for each block and a lot of time  
14 and effort went into looking at each block and having  
15 OGC review it in the region and in our workshops to  
16 make sure that it was fairly well vetted.

17 But essentially, an ITAAC closure letter  
18 will come in. Let's say that a pump was completed and  
19 the work was done and a licensee sends in a closure  
20 letter. And the first block, block one says, is the  
21 ITAAC complete. Yes. Then you got to block two.

22 MEMBER APOSTOLAKIS: Who decides that,  
23 you?

24 MR. LAURA: Yes. This is --

25 MEMBER APOSTOLAKIS: So there is a review

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1 a there.

2 MR. LAURA: Yes.

3 CHAIRMAN BLEY: So this whole flowchart is  
4 NRC's flowchart.

5 MR. LAURA: Yes. Now there are actions  
6 that others take but this is meant primarily for how  
7 NRC will process these letters.

8 MR. GASLEVIC: Rich, actually the hopper  
9 in block number one are actions by the licensee. They  
10 determine whether or not the ITAAC an individual ITAAC  
11 is complete. Then they would make the submittal for  
12 it, which is block number two.

13 MEMBER APOSTOLAKIS: Well how can the  
14 licensee ask the question is the ITAAC complete? I  
15 mean, you guys have received it. So the licensee  
16 already says it --

17 MR. LAURA: Right. That would be block  
18 two. Jim probably described it a little bit better  
19 than I did. Block two means we get the letter. So  
20 block one means the licensee asks himself --

21 MEMBER APOSTOLAKIS: Wait, wait, wait. I  
22 still don't understand this. Is the ITAAC complete?  
23 Then it says "no." So the licensee submits something  
24 and says it is not complete?

25 MR. LAURA: No. That is a second leg that

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1 we are going to get to. You are anticipating. That's  
2 good but if we just go down the first leg.

3 MEMBER APOSTOLAKIS: I understand but what  
4 does that mean. Who asks this question, is the ITAAC  
5 complete in block one?

6 MR. GASLEVIC: The licensee. The licensee  
7 has a hopper full of ITAAC that are included in the  
8 COL. As he is doing work, the construction schedule  
9 is going on, for any ITAAC he can probably go through  
10 and say have I completed the actions or have I not?  
11 If he has, yes, he would proceed to block number two  
12 and he makes a 52.99(c)(1) submittal to us.

13 MEMBER APOSTOLAKIS: So this is not just  
14 NRC then.

15 MR. LAURA: True.

16 So at block two, we get an ITAAC closure  
17 letter. NRC receives ITAAC closure letter. And then  
18 a review is performed by NRC. Was it successfully  
19 completed? We read the letter and make a judgment.  
20 And then assuming that it is complete, we would go  
21 over to block 11 and we would consider it closed. And  
22 then it would stay in the status of the associated  
23 ITAAC in that family. Because again, the family  
24 strategy is an important piece of this.

25 Now however, there are some other

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1 exceptions if it doesn't go this way. Like you  
2 pointed out on block one. If you are getting close to  
3 that 225 day notification you, at some point, would  
4 have to make the notification of uncompleted ITAAC.  
5 And that would go down through block seven. The  
6 licensee would submit what we call an uncomplete  
7 notification. And then that would meet the purposes  
8 for above, which is for the hearing purposes. But  
9 then later, the licensee would actually complete the  
10 physical work, you know, build the equipment, and then  
11 they would submit a closure letter saying that that  
12 work is completed. And then we would ask that same  
13 question. NRC would review it and determine if it is  
14 successfully completed.

15 So there are two ways to get to block 11.

16 One way is from the hopper down, which is the normal  
17 closed ITAAC way. That is the preferred way. And  
18 then the second way is when you get close to the 225  
19 date mark, you are going to get some uncompleted  
20 notifications that will come into the process. And  
21 both of those ITAAC will have to be completed. And  
22 you will see that later in the process.

23 So as you move on to block 12, assuming  
24 now that let's say all ITAAC are completed and they  
25 will be tracked by family. And those ITAAC will be

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1 maintained. This is where we touched on earlier that  
2 there may be a large period of time where you close an  
3 ITAAC but then a year, two, or three may go by and in  
4 that interim period, there may be some physical work  
5 that is necessary on that equipment. And that is  
6 where there are established programs including the  
7 construction maintenance process, QA problem and  
8 identification resolution and engineering  
9 modifications.

10 All of those programs will be enhanced to  
11 recognize work performed on SSCs related to ITAAC.  
12 And then some controls are placed that allow some  
13 activities to occur on that equipment with the intent  
14 that it will be restored.

15 CHAIRMAN BLEY: And this is that section  
16 8.3 of the --

17 MR. LAURA: Yes.

18 CHAIRMAN BLEY: -- document that is being  
19 reworked. And as it is being reworked, are you guys,  
20 you in industry, you and NEI close on this one or do  
21 you think there is still quite a bit of work to be  
22 done?

23 MR. LAURA: Well, we have had quite a bit  
24 of activity on it. We would look at it more. We are  
25 refining it, developing, implementing details. We are

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1 not in full agreement of all points but we think that  
2 we have made big progress. And actually this  
3 commission paper that we are working on will have the  
4 staff position. I believe NEI is going to be sending  
5 a paper in with their thoughts and opinions. And so  
6 we are getting near the endpoint on that.

7 MEMBER APOSTOLAKIS: I want to understand  
8 block 14.

9 MR. LAURA: Fourteen?

10 MEMBER APOSTOLAKIS: Yes. Invalidates any  
11 acceptance criteria. The acceptance criteria are  
12 invalidated --

13 MR. LAURA: Right. What that --

14 MEMBER APOSTOLAKIS: -- or you receive  
15 information that somehow affects the decision that the  
16 ITAAC is considered closed?

17 MR. LAURA: Well the purpose of that  
18 block, if you look at the notes on the back, it is  
19 essentially that somehow some information becomes,  
20 surfaces, maybe through an allegation or some other  
21 way that the NRC becomes aware of and we have to look  
22 at that to make sure that that information does not  
23 invalidate the acceptance criteria. And that is based  
24 on some of the previous experiences with construction  
25 that late in the process, concerns get raised to the

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1 staff and that is a recognition that that will have to  
2 be considered.

3 And you know, we would look at the  
4 threshold of that. You know, because you could raise  
5 a lot of different types of information but  
6 ultimately, the proof test would be looking at the  
7 ITAAC and the specific acceptance criteria. You know,  
8 and that is one of the values of having a specific  
9 ITAAC.

10 MEMBER APOSTOLAKIS: The acceptance  
11 criteria will be validated or proving that you have  
12 met the acceptance criteria.

13 MR. LAURA: Well --

14 MEMBER APOSTOLAKIS: That would be more  
15 meaningful to me that you have the acceptance  
16 criteria.

17 MR. LAURA: Right.

18 MEMBER APOSTOLAKIS: You thought they had  
19 been met.

20 MR. LAURA: Right.

21 MEMBER APOSTOLAKIS: And some information  
22 comes along that says, no, no, no, they have not been  
23 met.

24 MR. LAURA: Right.

25 MEMBER APOSTOLAKIS: That doesn't mean

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1 that the criteria are invalidated. The criteria are  
2 still valid. It is just that you haven't demonstrated  
3 that you have met them. Is it a matter of English, in  
4 other words? The words invalidates is not the right  
5 word?

6 MR. LAURA: No, it is real. What that is  
7 saying is that some activity occurred back during the  
8 project that maybe people weren't aware of. Maybe it  
9 got surfaced late in the process. Maybe the actual  
10 welder who did the work, who was the only one for  
11 example, brings forward some information that no one  
12 knew about. And now the NRC has become aware of that.  
13 That could potentially --

14 MEMBER APOSTOLAKIS: I agree with that.

15 MR. LAURA: Yes, it is real.

16 MEMBER APOSTOLAKIS: But that is not the  
17 only one.

18 MR. LAURA: Right.

19 MR. TAPPERT: I understand your comment.  
20 And the intent was not that the acceptance criteria  
21 are flawed it is just the underlying SSC isn't --

22 MEMBER APOSTOLAKIS: Yes.

23 MR. TAPPERT: -- meeting that.

24 MEMBER APOSTOLAKIS: Yes.

25 MR. TAPPERT: So, we will look at the

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1 wording of that.

2 MEMBER APOSTOLAKIS: Speaking of English,  
3 by the way, is there such a word as "uncomplete?"

4 MEMBER BROWN: It is in the dictionary.

5 MEMBER APOSTOLAKIS: What did you say,  
6 Charlie?

7 CHAIRMAN BLEY: It is in the dictionary.

8 MEMBER APOSTOLAKIS: It is?

9 CHAIRMAN BLEY: But the meaning is a  
10 little different. There is a subtle difference  
11 between the two.

12 MEMBER ABDEL-KHALIK: If you go to block  
13 number seven, you are asking the licensees to provide  
14 a lot of information in that 52.99(c)(2) notification  
15 an it seems like you are not doing anything with it.

16 MR. LAURA: We would receive the letter  
17 and read it. And then that would be, the letter would  
18 become public information. And what that would do is  
19 allow members of the public who may want to get  
20 involved in the hearing process, to have a level of  
21 information that meets their needs. So there is more  
22 stakeholders than just NRC.

23 MEMBER ABDEL-KHALIK: But it would seem  
24 like the flowchart should indicate that because  
25 looking at this flowchart, you know, you are asking

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1 them to give you a whole lot of information in that  
2 letter and then you get it, you file it, then you  
3 don't do anything with it. That is what this  
4 flowchart is telling us.

5 MEMBER BROWN: It is actually, if you look  
6 in the top vertical line, the purple line, there is a  
7 dotted line that goes up from block seven. And that  
8 is tied directly to the 225 day point. So, that has a  
9 very specific purpose for the hearing process. And  
10 so, it is a way of allowing the process to be  
11 efficient. I think that was the attempt.

12 MEMBER BROWN: It is because of the 180  
13 day requirement to publish when you are going do fuel  
14 load. There is only 45 days left.

15 MR. SPENCER: This is Michael Spencer,  
16 OGC. The purpose is that 180 days before scheduled  
17 fuel load a notice of hearing will go out, allowing  
18 members of the public to file a hearing request. They  
19 will have 60 days to do that. But they will have to  
20 have information to base the request on. And so for  
21 ITAAC that are not yet complete, a closure letter has  
22 not been submitted, there is nothing in the public  
23 record to dispute requiring them to describe the steps  
24 they plan on taking. That is something that they can  
25 dispute and they can base their hearing request upon

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1 that information.

2 CHAIRMAN BLEY: Thank you.

3 MEMBER RAY: And you don't see any  
4 difference between a DAC and an ITAAC in that regard?

5 MR. SPENCER: No. The Reg Guide and NEI  
6 08-01 is supposed to generally apply to ITAAC closure.  
7 And so these regulatory requirements, 52.99(c)(2),  
8 that is in the regulations, that applies to all ITAAC,  
9 including DAC.

10 MEMBER APOSTOLAKIS: DAC are a subset of  
11 ITAAC. Is that correct?

12 MR. LAURA: I --

13 MEMBER APOSTOLAKIS: Please, yes or no?

14 MR. LAURA: No.

15 MR. SPENCER: Yes.

16 (Laughter.)

17 CHAIRMAN BLEY: I was going to say please  
18 say yes but I want to hear both sides.

19 MR. SPENCER: The statement to  
20 consideration for the 2007 Part 52 Rule state that DAC  
21 are a type of ITAAC. So they are a type of ITAAC.  
22 They are essentially a subset of ITAAC.

23 MEMBER APOSTOLAKIS: But Richard says no.

24 MR. LAURA: Well, it is just wording. I  
25 agree with what Mike is saying. I have always heard

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1 it said that DAC is a special type of ITAAC.

2 MEMBER APOSTOLAKIS: But it is a subset  
3 subjected to the same process as ITAAC.

4 MR. LAURA: That is true, yes.

5 MEMBER APOSTOLAKIS: And we may want to do  
6 more on that but certainly this process applied to  
7 DAC.

8 MR. LAURA: Yes, it does.

9 MEMBER APOSTOLAKIS: Okay, that is clear.

10 MR. LAURA: We are in agreement, the words  
11 are just slightly different.

12 MEMBER APOSTOLAKIS: There is no argument.

13 CHAIRMAN BLEY: Speaking of words, and the  
14 one that George brought up. I take back what I said  
15 because uncomplete led me to the dictionary. One  
16 dictionary I looked at did not have the word. The  
17 other one had uncompleted but not uncomplete. Check  
18 your dictionaries before you put this thing on.

19 MEMBER APOSTOLAKIS: Why do you not use  
20 incomplete?

21 CHAIRMAN BLEY: Well uncompleted means  
22 something --

23 MEMBER APOSTOLAKIS: I thought it meant  
24 something.

25 CHAIRMAN BLEY: -- but they used it in a

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1 slightly different way. But they said uncomplete  
2 which isn't a word, I don't think.

3 MR. LAURA: Yes, I think the word came  
4 from the word itself. If you look through --

5 MEMBER APOSTOLAKIS: Oh, then it must be  
6 right.

7 CHAIRMAN BLEY: Then it must be right. It  
8 is now a word. Go ahead.

9 MR. LAURA: So, now we have reached a  
10 point where all of the work is completed, all ITAAC  
11 are closed, all acceptance criteria are met. You go  
12 to block 16 and you ask that question, are all  
13 acceptance criteria met? If the answer is yes, you go  
14 through the process and a recommendation is made up  
15 through the chain to the Commission and they will make  
16 a finding, saying that plant operation is authorized,  
17 which would mean, you know, the initial fuel load.  
18 And at that point in time, the plant technical  
19 specifications and license conditions kick in and they  
20 would govern the operability, at that point, to  
21 support mode change.

22 MEMBER APOSTOLAKIS: I mean, we have those  
23 dashed lines connecting seven and 18 to the timeline  
24 at the top. But there is no implication that the  
25 other boxes between seven and 18 occur. I mean, if I

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1 draw a dashed line from 15 up, that is incorrect. Not  
2 correct.

3 MR. LAURA: Right.

4 CHAIRMAN BLEY: It is not a time scale.

5 MR. LAURA: Exactly. Those dotted lines  
6 are significant.

7 MEMBER APOSTOLAKIS: Yes, and the absence  
8 of dotted lines is important.

9 MR. LAURA: Yes.

10 MEMBER APOSTOLAKIS: Okay.

11 MR. LAURA: Any other questions?

12 CHAIRMAN BLEY: This is helpful, thank  
13 you.

14 MR. LAURA: Okay.

15 MEMBER APOSTOLAKIS: Let me understand  
16 something. When they were building reactors in the  
17 '70s, they must have had something like this, didn't  
18 they?

19 MR. LAURA: They did not have ITAAC.

20 MEMBER APOSTOLAKIS: They didn't have  
21 ITAAC but they still had inspections. Right?

22 MR. LAURA: Yes. Yes and my  
23 understanding, we have a few of the --

24 MEMBER APOSTOLAKIS: Old timers. MR.

25 LAURA: But essentially what, and you can correct me

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1 but essentially --

2 MEMBER APOSTOLAKIS: I am curious whether  
3 --

4 MR. LAURA: It was more of a random thing.  
5 It was more of you go to the site, see what is going  
6 on, grab an IP, try to do as much as you can, say, you  
7 know, and hit what you can see and then move on to the  
8 next task.

9 CHAIRMAN BLEY: Maybe Russ wants to say  
10 something. I can assure you it wasn't random on the  
11 acceptance testing side by the --

12 MEMBER APOSTOLAKIS: It was purely  
13 aleatory, you mean.

14 MR. BELL: Yes, I was associated with  
15 several of those construction plans in the '70s and  
16 the '80s, Marble Hill, Midland, Zimmer, some of them.  
17 The way that construction was handled under Part 50  
18 is notably different than Part 52. Part 52 in my  
19 perception is an improvement.

20 Under Part 50, NRC was not given a primary  
21 role in validating the successful construction of a  
22 plant. It still had the requirement of issuing the  
23 safe operation, the safe performance of the plant.  
24 And the way it was imparted to the NRC was that the  
25 NRC was to inspect to safety related portions of the

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1 plant. That would be equivalent to what we would say  
2 as ranking or prioritization of inspections. The line  
3 was purely safety related.

4 And then the NRC was tasked to take  
5 limited resources and expend them wisely, so to speak.

6 And we tried to implement such things, we didn't have  
7 the AHB process and whatever. We had the Mil.  
8 Standard 105D type process, which as you know, takes a  
9 large population and says that if you do 60 or 70, you  
10 can get some surety that you have X percentage of  
11 assurance. But that is for homogenous populations  
12 which didn't work so well.

13 But what we did was we made inspection  
14 procedures that covered the gamut of construction,  
15 electrical, mechanical, welding, etcetera. And we had  
16 inspectors that went out and implemented those  
17 inspection procedures for construction as it was  
18 taking place.

19 So we covered construction under Part 50  
20 very thoroughly. And in fact, I think the record  
21 would indicate we covered it very well. On top of  
22 that, though, you had issues such as Brown's Ferry and  
23 TMI occurring, which added layers on top of what the  
24 NRC's inspection role would be, such as TMI action  
25 items, EQ, Appendix R, and things like that. And then

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1 you had SQUG and seismic requirements being added,  
2 SNUBA reduction plans. If you go back, you can see  
3 all these things.

4 So there were lots of layers of  
5 construction inspections that occurred under Part 50,  
6 which resulted, I think, in the safe operation of the  
7 existing operating plants.

8 MEMBER APOSTOLAKIS: Thank you.

9 MEMBER ABDEL-KHALIK: I had a question  
10 about the purple timeline on top of your chart.

11 MR. LAURA: Yes?

12 MEMBER ABDEL-KHALIK: That oval right  
13 above box seven refers to 225 days before scheduled  
14 fuel load.

15 MR. LAURA: Yes.

16 MEMBER ABDEL-KHALIK: And the very last  
17 oval is fuel load. The time period between these two  
18 ovals can be greater than but not less than 225 days.

19 Now, can the licensee at any time during  
20 this process come back and submit a revised schedule?

21 MR. LAURA: There are updates and there is  
22 discussion of that in Part 52 that they have to  
23 periodically update their schedule to the staff  
24 because that is key for our ability to be able to  
25 close out the last remaining ITAAC. Because the

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1 amount of ITAAC will ramp up near the end. So we will  
2 be most challenged at the end when a large number  
3 close.

4 MEMBER ABDEL-KHALIK: But if that is the  
5 case, at the licensee's discretion, they can  
6 essentially revise the schedule, delaying the time of  
7 scheduled fuel load so that you would never enter the  
8 white part of this chart.

9 MR. LAURA: Possibly. I mean, they would  
10 have to update it, you know, depending on what occurs  
11 and communicate to NRC what is their schedule, just  
12 like any other big project, the schedule --

13 MEMBER ABDEL-KHALIK: Why would it be in  
14 the licensee's interest to ever get into a situation  
15 where they would have to submit a 52.99(c)(2)?

16 MR. LAURA: Well, again, I don't want to  
17 try to speak for a licensee.

18 MEMBER ABDEL-KHALIK: I am just trying to  
19 understand the process.

20 MR. LAURA: Yes. But I think --

21 MR. SPENCER: Because they would never get  
22 to operate. Otherwise, you can't operate. You can't  
23 load fuel until you get the Commission to find that  
24 the ITAAC are met. So, --

25 MEMBER ABDEL-KHALIK: No, but --

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1 MR. SPENCER: -- if they kept on delaying  
2 the schedule, they would never get to operate.

3 MEMBER ABDEL-KHALIK: No, but the point is  
4 --

5 MR. LAURA: I think what he is saying is  
6 why do you even need (c)(2)? In other words, complete  
7 all your ITAAC first and don't have -- and I think  
8 philosophically that would be good. But as far as  
9 being a big project, a thousand ITAAC, there is a  
10 practicality that some won't be completed. And why  
11 hold up the hearing process. And that was a big  
12 policy issue and it went up to the Commission, came  
13 back down, and this is the most efficient and  
14 effective way.

15 CHAIRMAN BLEY: I would think -- don't  
16 leave. My impression is that the public needs this  
17 225 day period to have the chance to call for a  
18 hearing. And if you -- and that would happen either  
19 when you submit this letter or if you submit all of  
20 your ITAAC, that would be equivalent. But you would  
21 still have to wait 225 days before you could start up.  
22 They could do this earlier than the 225 days, right?

23 MR. SPENCER: Well, you mean they could  
24 send in a closure letter for all ITAAC.

25 CHAIRMAN BLEY: Well certainly they could

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1 send in all ITAAC when they had them finished. But if  
2 I have got a date out here 300 days in advance when I  
3 want to start up but I think I might be able to  
4 tighten my schedule, could I submit this 99(c)(2)  
5 letter identifying the open ITAAC and then once 225  
6 days were past, anytime after that I could go ahead  
7 and load fuel. Yes?

8 MR. SPENCER: Well, no.

9 CHAIRMAN BLEY: I mean, so this is --

10 MR. SPENCER: The thing is, you --

11 CHAIRMAN BLEY: -- it has to be no longer  
12 than and no shorter than.

13 MR. SPENCER: No. This is scheduled fuel  
14 load not guaranteed fuel load. So if the licensee  
15 says we plan on -- their schedule for fuel load is  
16 April 18th or something like that and the Commission  
17 doesn't find that the ITAAC are met on April 18th or  
18 May 18th or June 18th or August 18th, they can't start  
19 up. So, this is their schedule. It has to be  
20 realistic because the Commission has to process the  
21 letters and make the determinations. And if the  
22 Commission can make the determination, they won't.

23 CHAIRMAN BLEY: I guess I am maybe missing  
24 something but it seems to me if I had a date out  
25 there, I would pick for this purpose, I would want it

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1 as early as possible so that I had as much flexibility  
2 as I could to get the plant online as soon as  
3 possible.

4 MEMBER RAY: But you raise your exposure  
5 to a hearing, the longer the list is.

6 MEMBER STETKAR: You now have a public  
7 list that any member of the public can raise --

8 CHAIRMAN BLEY: You have the list of ITAAC  
9 before you start. The whole set.

10 MEMBER STETKAR: Except if it is already  
11 completed and verified by the Agency, they are off the  
12 table.

13 MR. SPENCER: Well, no. Okay, I want to  
14 clarify here. The process in terms of the NRC finding  
15 that ITAAC are met, a closure letter is submitted and  
16 NRC staff, which is EDO and below, will make their  
17 determination based upon the closure letter and  
18 inspection results. But that is an informal, in a  
19 sense it is an informal determination. It is not an  
20 official final determination. The official final  
21 determination has to be made by the Commission itself.

22 And so even if the NRC staff says, and publishes a  
23 Federal Register notice saying we agree that these  
24 particular ITAAC are closed, a member of the public  
25 could still file a hearing request stating we don't

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1 believe that ITAAC was closed and here are our reasons  
2 why and here is our evidence. And then if they meet  
3 the requirements for contention and they request the  
4 requirements for an ITAAC hearing, they could have a  
5 hearing on those issues.

6 MEMBER ABDEL-KHALIK: So as far as the  
7 public hearing is concerned, it doesn't make any  
8 difference whether the ITAAC is closed or not closed,  
9 in a sense that they can challenge whether or not a  
10 closed ITAAC had been properly closed.

11 MR. LAURA: Yes, exactly. They can  
12 challenge closed ITAAC and they can challenge for  
13 unclosed ITAAC the uncomplete ITAAC, they can  
14 challenge the plans for completing the ITAAC closure.

15 CHAIRMAN BLEY: I guess most of them would  
16 be closed by the time you actually got to a hearing.  
17 We are almost finished with your slides, it looks  
18 like.

19 MR. LAURA: Yes.

20 CHAIRMAN BLEY: And we are almost finished  
21 with your time. Why don't we go ahead and finish up,  
22 Richard, and then we will take a break.

23 MR. LAURA: Okay.

24 MR. OESTERLE: Eric Oesterle from the  
25 staff, one last thing. You asked about the 225 day

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1 letter. The requirement says that it is no later than  
2 225 days before scheduled fuel load. So the licensee  
3 does have the option to submit it earlier, if they  
4 want to. But like Harold was identifying, there is no  
5 apparent benefit to doing that because it creates the  
6 perception that hey, you have only got ten percent  
7 completed and you have 90 percent uncompleted ITAAC at  
8 that point.

9 So, we didn't restrict it.

10 CHAIRMAN BLEY: Thank you.

11 MR. LAURA: Okay, on page 19, there are  
12 two types of templates that are attached to NEI 08-01  
13 and Russ Bell will go through some specific examples  
14 of those. I am not going to duplicate here. But on  
15 these slides, it just shows the general headings of  
16 the types of information that will be in those  
17 notifications.

18 And if you just compare the two, if you go  
19 on to slide 20, on slide 20, you are starting to talk  
20 about some activities that will be performed in the  
21 future. Those are a little interesting. Those are  
22 the ones that are related to the uncomplete ITAAC. So  
23 there is a little difference in the content of those  
24 letters because there is a little prediction going on  
25 in those.

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1           So that is the only thing I wanted to  
2 point out. Russ will go through more detail.

3           On slide 21, this is like a summary slide  
4 for us. Substantial progress has been made in  
5 developing guidance for implementing Part 52. The  
6 goal is to stay close to Part 52. There was a lot of  
7 interaction with external stakeholders. Some of the  
8 key terminology relates to sufficient information and  
9 reasonable person. Russ will touch on the reasonable  
10 person definition.

11           Consensus was achieved in the 26 templates  
12 that are attached. And basically, the flowchart  
13 illustrates the connection between 52.99, which is the  
14 notifications, and the 103(g), which is the Commission  
15 finding.

16           MEMBER ABDEL-KHALIK: If a member of the  
17 public were to challenge the proposed actions to close  
18 an ITAAC following receipt of the 225 day  
19 notification, would this high level discussion of the  
20 remaining activities be sufficient to provide them  
21 with information as to the adequacy of such  
22 activities?

23           MR. LAURA: Yes, I would defer to Mike or  
24 Eric.

25           MR. OESTERLE: Eric Oesterle, staff. In

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1 fact, the staff had addressed that question in the  
2 statements of consideration for the Part 52 Rule. And  
3 it says "the term sufficient information requires at a  
4 minimum," and this is for the uncompleted ITAAC now,  
5 "a summary description of the bases for the licensee's  
6 conclusion that the inspections, test or analyses will  
7 be performed and that the prescribed acceptance  
8 criteria will be met. In addition, sufficient  
9 information includes but is not limited to a  
10 description of the specific procedures and analytical  
11 methods to be used for performing the ITAs and  
12 determining that the acceptance criteria have been  
13 met."

14 And it goes on to talk about that the  
15 staff would expect any interveners to focus on any  
16 inadequacy in the methodologies that the licensee  
17 might use to complete those uncompleted ITAAC.

18 MEMBER ABDEL-KHALIK: What is the purpose  
19 of this template?

20 MR. LAURA: It is to provide a set of  
21 information. It is like a status letter for that  
22 ITAAC that it is not completed. And that here is what  
23 has been completed but here is what remains to be  
24 completed and here is why it should be completed  
25 properly.

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1                   MEMBER ABDEL-KHALIK: Well okay. Let me  
2 ask the question differently. Are there any  
3 supplements to this 225 day notification template that  
4 you would expect?

5                   MR. LAURA: There would be, once the  
6 actual work is completed --

7                   MEMBER ABDEL-KHALIK: No. This is a  
8 notification.

9                   MR. LAURA: No. At this point, the 225  
10 letter, we don't really anticipate that there would be  
11 supplements to those.

12                   MEMBER ABDEL-KHALIK: Okay, so this is a  
13 stand-alone letter. And if I am a member of the  
14 public, or was concerned about a particular ITAAC that  
15 had not been closed, would I have enough information  
16 to challenge the method by which this ITAAC is to be  
17 closed?

18                   MR. LAURA: Right. And for that I think  
19 Mike in OGC might be the best person to address that.

20                   MR. SPENCER: Yes. Essentially, the  
21 closure letters that describe past activities I would  
22 say, you know, we perform inspection X and this is how  
23 we did it. And that complete notification would say  
24 we will perform inspection X and this is how we will  
25 do it. So, it should be a similar level of

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1 information, although it may be additional  
2 information. And we have some examples of uncomplete  
3 notifications that are appended to one of the  
4 appendices to NEI 08-01, along with examples of  
5 completed notifications. And that will give you an  
6 idea of how much level of detail is contained in each  
7 type of notification.

8 MEMBER RYAN: Just a follow-up question.  
9 "Provides forward looking statements for confidence  
10 that these actions will be achieved." That almost  
11 sounds like you have already determined what the  
12 outcome is going to be before you get there.

13 MR. SPENCER: No. And in fact, these are  
14 the licensees' statements of their intentions --

15 MEMBER RYAN: It sounds like their  
16 position is saying what the outcome is going to be  
17 before they get there.

18 MR. SPENCER: Well, presumably, they are  
19 planning to take those actions that would be necessary  
20 and sufficient to demonstrate that the ITAAC are met.

21 So they wouldn't send us a letter saying, you know,  
22 we are going to take these actions but it is not going  
23 to be good enough. So presumably they are going to --

24 MEMBER RYAN: That is a whole lot better  
25 wording you just said than looking for statements of

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1 confidence that these actions will be taken.  
2 Statements of confidence are a lot different than an  
3 inspection result.

4 MR. SPENCER: I think that the intention  
5 is the same thing.

6 MEMBER RYAN: I am going to pick on those  
7 words because it makes it sort of look like you have  
8 made a determination up-front.

9 MEMBER ABDEL-KHALIK: I guess, to be  
10 honest here, my concern is that these templates were  
11 developed by NEI. Is that correct?

12 MR. LAURA: No. We had a series of public  
13 workshops and the members of industry, NEI, a number  
14 of stakeholders, the Region participated in them all,  
15 OGC, Rulemaking. And they were very open and very  
16 lively discussions and we welcomed input from any  
17 groups.

18 MEMBER BROWN: Are we going to talk about  
19 sufficient sometime in the next round, since we didn't  
20 really talk about what sufficient means?

21 MR. LAURA: Yes, I think --

22 MEMBER BROWN: When we get the letters?

23 MR. LAURA: Yes. Yes, the letters --

24 CHAIRMAN BLEY: We'll do that with Russ  
25 and then we will come back to it, if we need to.

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1                   MEMBER BROWN: All right. Well, that is a  
2 big open issue in my mind.

3                   CHAIRMAN BLEY: We will come back to that  
4 after the break.

5                   MEMBER BROWN: Okay.

6                   MR. LAURA: Some of the slides we went  
7 over to make up time had some guidance right out of  
8 the rule on sufficient information.

9                   MEMBER STETKAR: Rich, in those workshops  
10 that you had, did you actually have public  
11 participation outside of NEI and perhaps and potential  
12 licensees?

13                   MR. LAURA: There was a few. There was  
14 not a lot but there was some.

15                   MEMBER STETKAR: But there was some.

16                   MR. LAURA: A few, yes.

17                   MEMBER STETKAR: Okay.

18                   CHAIRMAN BLEY: Do you --

19                   MEMBER CORRADINI: One last question.

20                   CHAIRMAN BLEY: Go ahead. I have got two  
21 flowchart questions, too.

22                   MEMBER CORRADINI: So, I am curious about  
23 since I got an answer from the gentleman behind the  
24 podium and Eric saying that 100 percent of the DACs  
25 will be inspected somehow. Where is that in the Reg

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1 Guide?

2 CHAIRMAN BLEY: That was one of my  
3 questions. Where is that going to be, these --

4 MEMBER CORRADINI: Where is it written  
5 down, besides my memory and this meeting?

6 CHAIRMAN BLEY: It's not. It is where  
7 will it be written down and we have been told that in  
8 Region II --

9 MEMBER CORRADINI: Oh, excuse me.

10 CHAIRMAN BLEY: -- they are developing the  
11 guidance. And I would ask where that guidance is  
12 going to end up being included. Will it be in one of  
13 these documents or will it be in the inspection manual  
14 or will it be somewhere else?

15 MR. LAURA: Right. The inspection manual  
16 chapter is the governing document for all inspections.  
17 And we have different components, including  
18 engineering design verification inspections. And 2504  
19 will provide, you know, it has a number of inspection  
20 procedures. And then below that, you have the  
21 implementing inspection strategy documents that the  
22 Region is working on.

23 So, that is sort of down at the working  
24 level.

25 CHAIRMAN BLEY: You do have an idea yet

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1 when those will be available that we could review  
2 them?

3 MR. LAURA: Which ones?

4 CHAIRMAN BLEY: The ones dealing with DAC.

5 MR. LAURA: They have completed, they are  
6 working on an initial set of 20 and those are going  
7 through the review process and they are making efforts  
8 to try to move forward and develop further ones.

9 CHAIRMAN BLEY: We would sure like to get  
10 a look at those. And maybe Girija can follow up on  
11 that.

12 MEMBER APOSTOLAKIS: Now I am a little  
13 confused. Is it a matter of inspecting only the DACs?  
14 The got the impression from John Stetkar's comment  
15 earlier that it would take a more detailed review  
16 because they are affecting design.

17 CHAIRMAN BLEY: Let me say something and  
18 see if you guys agree with it. They are using the  
19 word inspection to cover these but this inspection,  
20 from what I have heard, will be equivalent to a design  
21 review. Those are the words I heard.

22 MEMBER APOSTOLAKIS: Heard by whom?

23 CHAIRMAN BLEY: By headquarters staff.  
24 And Eric Oesterle said that a little earlier.

25 MEMBER APOSTOLAKIS: Okay, so they are

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1 just not inspections then.

2 CHAIRMAN BLEY: It would be a new kind of  
3 inspection, I guess.

4 MEMBER BROWN: George, design  
5 certification. It is a certification that the design  
6 was completed as the DAC.

7 MEMBER APOSTOLAKIS: I'm sorry Charlie.  
8 What?

9 MEMBER BROWN: A design certification is a  
10 way I would look at it.

11 MEMBER APOSTOLAKIS: A design  
12 certification, there was a fairly deep review. When I  
13 hear inspection, I don't associate that with that.  
14 Now, Dennis said no, this is a particular special type  
15 of inspection.

16 CHAIRMAN BLEY: That is what we want to  
17 see.

18 MR. TAPPERT: The distinction we are  
19 trying to make is between licensing and inspection.  
20 Okay? Once the license is issued, we are not doing  
21 licensing anymore. So anything after that is really  
22 inspection activity to confirm that the DAC is met.

23 Yes, I mean, it is going to be very in-  
24 depth. It is going to be extensive but it is going to  
25 be an inspection by definition.

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1                   MEMBER RAY:     But there is no SER that  
2 results from it.

3                   MR. TAPPERT:       Correct.     The SER is  
4 associated with license.

5                   MEMBER STETKAR:   So for example, if I have  
6 a design process that says you will design a control  
7 panel layout according to some type of human factors,  
8 engineering criteria, and those criteria have been  
9 approved through the COL issuance, the actual design  
10 of that panel layout is only then subject to  
11 inspection. Is that correct?

12                  MR. TAPPERT:       Yes, subject to an  
13 inspection. It might be a very extensive inspection  
14 but it is an inspection.

15                  MEMBER STETKAR:   Thanks.

16                  CHAIRMAN BLEY:   I had one last real simple  
17 question. How do we endorse the NEI document in a Reg  
18 Guide when you think there are still needed changes to  
19 the I document? And I don't see any words indicating  
20 that in the Reg Guide.

21                  MR. GASLEVIC:   Well, they are not changes.

22                  CHAIRMAN BLEY:   Well, I think Mark --

23                  MR. KOWAL:     Yes, I think that we feel that  
24 we are in a position to issue this as is. I think the  
25 main focus of the group when this started was to

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1 develop the guidance on the ITAAC closure and the  
2 templates that we have talked about. For example,  
3 closure letters and what sufficient information and  
4 reasonable person is. I think the ITAAC, the piece we  
5 are trying to supplement here is with respect to ITAAC  
6 maintenance, which my understanding came about later  
7 on in the process. And that gets into supplemental  
8 notification letters and more information on the  
9 103(g) finding, not really affecting what is in the  
10 closure letters and things that are in the templates.

11 CHAIRMAN BLEY: The information in 8.1 of  
12 what -- the substance of it you are not objecting to.

13 It is more the process documentation or something.

14 MR. KOWAL: Right. That is what we are  
15 working on and that is what we are going to talk about  
16 in our commission paper in August. And when that is  
17 finalized, we will then supplement the Reg Guide.

18 MEMBER ABDEL-KHALIK: Back to the  
19 discussion about DAC and the fact that they are called  
20 inspections just simply because of when they happen  
21 and that an SER is not written as a result of that  
22 review.

23 If I look at box number three, what form  
24 of documentation would support this yes outcome at the  
25 bottom of this box?

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1                   MR. LAURA: For this, you would have to go  
2 to SIPMs, which is the database for inspection  
3 findings. Because by this point in time, all of the  
4 physical work was done previously. All the actual  
5 inspection has been completed. The real work has been  
6 done. And this is just like a closure letter at this  
7 point.

8                   So at this point, ideally, you go to the  
9 database. You look. Were there any findings? If  
10 there were findings, you look to see where they  
11 disposition correctly. Are there any outstanding  
12 issues on those? That is what you are looking for,  
13 before we send a letter out to the public saying it is  
14 closed.

15                   So the inspection is the key part. It is  
16 performance based. It occurs during the actual  
17 physical activities. These letters come in  
18 subsequently later.

19                   MEMBER ABDEL-KHALIK: Not but I am  
20 thinking more in terms of a DAC. Okay? You start out  
21 with a certain set of criteria and the applicant  
22 provides a proposed design that is consistent with  
23 these criteria.

24                   MR. LAURA: Right.

25                   MEMBER ABDEL-KHALIK: And you were

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1 supposed to evaluate that engineering design and  
2 establish that indeed it is consistent with those  
3 criteria.

4 MR. LAURA: That would also occur earlier  
5 during that same period of time. In other words, the  
6 activity won't start at the point we get the letter.  
7 At that point, it is too late. In other words, we  
8 want to be in the position that when the activity is  
9 occurring, let's say they do a human factors design,  
10 you know, we want to review that early when it is  
11 available and it is approved and not wait until a  
12 closure letter comes in.

13 MEMBER ABDEL-KHALIK: I am still trying to  
14 find, you know, if historically somebody down the road  
15 wants to see how that particular design meets those  
16 criteria that were stated in the DAC, where they would  
17 go.

18 MR. LAURA: In the inspection report. In  
19 other words, the review that is done here by the  
20 technical staff, they will develop a written report or  
21 a written feeder that will then go to Region II where  
22 they have qualified inspectors and they will take that  
23 feeder, make sure it is in inspection language, and  
24 they will process it and put the findings. There  
25 could be findings. They will disposition findings and

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1 then put it into what we call SIPMs.

2 MEMBER ABDEL-KHALIK: I am still -- I  
3 mean, this is presumably done by headquarters.

4 MR. LAURA: Yes.

5 MEMBER ABDEL-KHALIK: But what will be the  
6 outcome of this process that headquarters will go  
7 through? Is this a piece meal process or is it --

8 MR. LAURA: They will do the full review  
9 that they would have done, had the information been  
10 available earlier. And then they will have a  
11 conclusion. They will write that up and they will  
12 send it to the region where the qualified inspectors  
13 are. And the Region II will pick it up and process  
14 that information.

15 CHAIRMAN BLEY: We really want to see how  
16 this is going to work. I think it is time for us to  
17 take a break and we will come back to it. We will go  
18 back to it before we are done. I think there is no  
19 question that something like this you are going to see  
20 from us that we really need to understand that because  
21 it is getting into things of the design that we are  
22 very interested in.

23 So, we will take a break from now until  
24 3:30 and we are off the record.

25 (Whereupon the foregoing meeting went off the record

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1 at 3:15 p.m. and resumed at 3:33 p.m.)

2 CHAIRMAN BLEY: We're back in session and  
3 it is time to move on to the NEI presentation. Russ  
4 Bell, please take the floor.

5 MR. BELL: Thank you very much. I am  
6 Russell Bell from the Nuclear Energy Institute. I  
7 appreciate the interest of the committee and the  
8 Commission on these important issues related to ITAAC  
9 closure.

10 I am grateful to have members of our  
11 construction inspection program task force behind me  
12 to help me with the really difficult questions, of  
13 which there have been many. And I think we can answer  
14 a number of your questions today in concert with the  
15 staff but perhaps not all. You may have come in with  
16 expectations that we had all the answers on exactly  
17 what information was going to be necessary to close  
18 out a DAC. That was never what this project was  
19 about. This project is about the part of that process  
20 where even for DAC or any ITAAC we owe the NRC a  
21 letter that says it is closed. It needs to have  
22 sufficient information to describe how it was closed.

23 That was what this was about. And as Rich  
24 and Mark observed, there were separate activities  
25 ongoing to drill down into particularly the I&C and

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1 human factors area and determine just what exactly is  
2 the information that will be necessary? And  
3 certainly, I understand the committee's interest in  
4 those and perhaps there will be another day when we  
5 are loaded with all of those answers as well.

6 I also appreciate Rich and Jim  
7 particularly keeping me company here. It is  
8 appropriate. This has been a very good interaction  
9 between the industry and other stakeholders with the  
10 staff, a very thorough engagement on these issues.  
11 How many workshops and meetings are we up to, 15  
12 perhaps. And as was observed, they are continuing  
13 because as we resolve one basket of issues, the ones  
14 before us today, there are others. And we will keep  
15 asking those questions and drilling down and trying to  
16 write down clear guidance until we can think of no  
17 more questions.

18 As Rich and Mark indicated, the Reg Guide  
19 before you largely endorses the industry guideline NEI  
20 08-01. We are very pleased about that. So my plan is  
21 to provide you an overview of that document. I may  
22 cover some of the same points as Rich. I hope you  
23 will view this as reinforcement and not redundancy but  
24 I just forewarn you of that.

25 I will cover the content of 08-01. I will

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1 get on to the templates. Time permitting, we can look  
2 at one of the actual sample letters based on the  
3 template to get at what we and the staff view as  
4 sufficient information with respect to ITAAC closure.

5 And then there are some comments on DG-1204. Again,  
6 time permitting we can get to those. I'll take the  
7 next slide.

8 Like any good guidance document, it has  
9 got introduction and definitions. The purpose, the  
10 DAC is to provide a framework, a process for ITAAC  
11 closure that is efficient and, of course, meets all  
12 NRC requirements. I think somebody said already,  
13 there is going to be 800 or a thousand of these ITAAC,  
14 each of which needs to complete this process. When  
15 you are dealing with that kind of volume -- and that  
16 was just for one plant and one design. Okay? When  
17 you are dealing with the volume we are talking about  
18 and the number of projects that may be going on in  
19 parallel, you do need an efficient process. And that  
20 is why we are putting a lot of effort in on the front  
21 end to imagine ourselves in the process and developing  
22 guidance protocols, templates for ensuring that it can  
23 go as efficiently as possible.

24 There are a number of definitions and I  
25 can tell you all have done your homework. And a thing

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1 called an ITAAC closure letter is defined. That is  
2 when we, the licensee, consider that ITAAC completed  
3 and send a formal notification of that to the NRC.

4 As distinguished from an ITAAC closure  
5 package, we define that as the backup for that letter  
6 we send to the NRC and it has got the full detail of  
7 backup information and references that provide the  
8 basis for our conclusion that that was meant. That  
9 information is retained onsite.

10 You know, these are the two thousands and  
11 you may not find it hard copy in a file cabinet. So  
12 you should think electronic or optically scanned but  
13 that is going to be up to the licensee, whatever is  
14 most efficient but that package would be available  
15 onsite for NRC review.

16 And then terms like "as-built". A we got  
17 into this process, we realized we needed to better  
18 define that. ITAAC are typically performed on the  
19 installed components, the as-built configuration of  
20 the components. We turned up cases where that may not  
21 be practical. You may have internal dimensions or  
22 reactor pressure vessel or orifice sizes that once you  
23 close up that system or that vessel, there is no  
24 further access to those. You had better have measured  
25 those at the fabricator and prior to installing that

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1 item. So we have some additional guidance in our  
2 paper on that.

3 MEMBER RAY: Yes, Russ. I think these  
4 definitions that you are referring to now people  
5 relate to pretty easily, when you are talking about  
6 the original concept of ITAAC. But you will sense  
7 that most of the concern here is on DAC. Apply these  
8 definitions then to DAC. We heard it said that the  
9 staff would want to review compliance with the DAC at  
10 the time the design is done, not when something is  
11 built and in the field and so on.

12 MR. BELL: Okay. Let me do so -- I don't  
13 want to do that. Let me come back to that in just a  
14 bit. I will take the next slide. And there are many  
15 more definitions I just gave you.

16 The life cycle of a typical ITAAC, the  
17 bulk of these come from design certification,  
18 including DAC. They are codified as part of the  
19 rulemaking. They are referenced, incorporated into a  
20 COL application. The COL applicant needs to add some  
21 additional ITAAC of a plant-specific nature. I am  
22 thinking about emergency planning, security, site-  
23 specific interfaces with the standard plant systems.

24 Now you have got a set of ITAAC you take  
25 forward into the construction phase and you need to go

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1 through this process. And that is going to include  
2 some DAC.

3 Yes?

4 MEMBER ABDEL-KHALIK: In any process, you  
5 would like to see some checks and balances. In  
6 looking at this process, what in this process drives  
7 the applicant to minimize the number of ITAACs?

8 MR. BELL: Of course, the ITAAC are  
9 established in front, up-front, and most of them in  
10 the design certification. You know, to date, there  
11 has been more attention given to assuring the ITAAC  
12 are clear, measurable, objective than few. It may be  
13 simpler to verify an ITAAC is closed, if I break  
14 something up into constituent pieces. And so some of  
15 the volume, I think, generates from that. In the  
16 extreme, you could say the RHR system meets the --  
17 conforms to the figure and meets the design  
18 requirements and that could be an ITAAC. But that is  
19 such a mouthful and the documentation for that would  
20 be so extensive and varied. Instead, there is a set  
21 of 14, umpteen ITAAC on say the RHR system.

22 So, I would say there has not been a  
23 strong incentive to minimize the number of ITAAC.

24 MEMBER ABDEL-KHALIK: But isn't this sort  
25 of a de facto incentive to try to push as many things

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1 into ITAACs as possible in this process?

2 MR. BELL: Yes. In fact, I have had  
3 concerns as, you know, more design certifications come  
4 forward, all of which need a set of ITAAC. There  
5 could be a tendency to decide you know, well, this  
6 should be an ITAAC also and this and this.

7 And we may get away from the reasons ITAAC  
8 were established and the focus of ITAAC intended to be  
9 on the salient design and performance features of the  
10 systems. You say well so what, there is more ITAAC.  
11 Well, at some point it passes off, it hands off to  
12 this process. And this process I could -- it  
13 conceivably could become overburdened from volume.

14 And so I would like to think there would  
15 be some respect, and I believe there has been,  
16 largely, for the principles and the focus of ITAAC  
17 originally on those key salient features and not to go  
18 substantially beyond because all of that needs to go  
19 through this process and --

20 MEMBER ABDEL-KHALIK: Where does the push  
21 back come from?

22 MR. BELL: These are typically  
23 conversations between the vendor and the NRC. So, it  
24 would be up to the vendors to understand the original  
25 guidance on the scope and purpose of ITAAC and to

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1 recognize well, you know, that seems to go beyond what  
2 this SRP says should be included in ITAAC. And you  
3 know, none of the other certifications had this. I  
4 mean, those would be flags to me and, I hope, to the  
5 vendors to say, hey, why has this assembly become  
6 subject of an ITAAC.

7 It doesn't mean, I am not trying to say  
8 that the staff can never evolve or get smarter about  
9 what should and shouldn't be ITAAC. I just think that  
10 there should be some cognizance that there is another  
11 shoe to drop when you add and add and add.

12 CHAIRMAN BLEY: Can I ask you a question,  
13 Said? It seems to me the vast number of ITAAC are  
14 like kind of acceptance test issues that we wouldn't  
15 want to minimize. The DAC kind of things certainly  
16 would because it lets the design review be more  
17 complete. And it seems to me the vulnerability you  
18 have by pushing those things you could do earlier into  
19 ITAAC is that you are subject to a challenge and  
20 potential hearing which you aren't if it is in the  
21 design certification. That is pretty much right, I  
22 would think.

23 Even if -- let's try this because I have  
24 gotten mixed statements on this one from some other  
25 people. If the lead plant comes through and has a

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1 full suite ITAAC, including the DAC and they  
2 successfully complete those, the next plant, if it has  
3 exactly the same DAC, in principle wouldn't need a  
4 through review because you already had one, they would  
5 still be susceptible to a challenge and maybe a  
6 hearing when they come forward and say we have met  
7 them the same way the first plant did. That is not a  
8 guarantee that you will be acceptable to that process.

9 I think that is true. Is that right?

10 MR. LAURA: I think so. I would ask Eric  
11 or Mike, Eric from rulemaking or Mike from OTC. But I  
12 believe that is true.

13 MR. OESTERLE: I was closer, Mike. Sorry.

14 It depends upon the method in which DAC is going to  
15 be closed out. I mean, we are currently envisioning  
16 three different methods of closing out DAC.

17 CHAIRMAN BLEY: The third method is the  
18 one I am talking about. The one that -- I forget the  
19 exact words.

20 MR. OESTERLE: After the license is  
21 issued.

22 CHAIRMAN BLEY: Yes.

23 MR. OESTERLE: And I am going to maybe  
24 give it a twist. And perhaps it is via a topical  
25 report or a technical report that the design

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1 certification vendor submits for the NRC to review.

2 I don't think we have completely thought  
3 out that entire process but I think in terms of if the  
4 NRC reviews that topical report and issues an SER on  
5 that topical report, there may be efficiencies where a  
6 subsequent COL referencing that SER would not have to  
7 go through the same hurdles that the first COL  
8 referencing those SCRs have to go through.

9 CHAIRMAN BLEY: I can understand that and  
10 maybe this is a question for Mike. But if somebody  
11 challenged it at that point, would they be vulnerable?

12 MR. SPENCER: Even if an ITAAC had been  
13 closed the same way with a different license as to the  
14 RCOL, for the SCOL, that would still be subject to  
15 challenge in the ITAAC hearing process. So there  
16 would still be an opportunity to challenge ITAAC  
17 closure for the SCOL.

18 CHAIRMAN BLEY: And if they didn't the  
19 first plant that came through?

20 MR. SPENCER: Well, you have to have  
21 realize that these plants are located in different  
22 places.

23 CHAIRMAN BLEY: Different places, yes.

24 MR. SPENCER: So, different people, you  
25 know, in terms of meeting the requirements for a

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1 hearing request standing or interest, you know,  
2 somebody living 20 mile from one plant is going to be,  
3 you know, they are going to be concerned about the  
4 plant that is 20 miles away from them and not the  
5 plant that is 300 miles away from them.

6 CHAIRMAN BLEY: Well, while you are still  
7 there, if they were closed via the first two options  
8 through an amendment to the design cert or through the  
9 COLA, then certainly the first one, that would not  
10 apply, if it is an amendment to the design cert, it is  
11 good for everybody from that point on.

12 MR. SPENCER: Yes. And the way to  
13 challenge a rule is to petition for rulemaking,  
14 essentially. And in terms of --

15 CHAIRMAN BLEY: What if it closed through  
16 the COLA?

17 MR. SPENCER: If it closed through the  
18 COLA, if you look at 10 C.F.R. 52.85, I'll get the  
19 language here. It requires if an applicant wants to  
20 close an ITAAC in the COL issuance, the notice of  
21 hearing would have to describe that, that the  
22 applicant plans and intends to close certain specific  
23 ITAAC in the COL proceeding and there would be an  
24 opportunity for --

25 CHAIRMAN BLEY: I didn't say it right.

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1 MR. SPENCER: Okay.

2 CHAIRMAN BLEY: The first plant closes the  
3 ITAAC through the COLA and they get their license.  
4 The second plant who then adopts the design cert and  
5 the modifications through that first COLA, they are  
6 not susceptible to a hearing again, are they?

7 MR. SPENCER: Well it depends upon how  
8 they resolve it. If the issue is resolved in design  
9 certification, then it is generally applicable.

10 CHAIRMAN BLEY: Yes.

11 MR. SPENCER: If it is not designed in  
12 design certification, if it is resolved in an  
13 individual COLA for an individual licensee or during  
14 construction for the individual licensee, then it is  
15 susceptible to challenge on the processes on those  
16 individual proceedings.

17 CHAIRMAN BLEY: Thank you. Sorry for the  
18 diversion.

19 MR. BELL: I'll take the next slide.

20 This is a blowup of the last phase on the  
21 previous slide and it is what we are talking about  
22 here today, the case where the ITAAC have persisted in  
23 the construction phase and where it resolved by one of  
24 those other options.

25 The little hash marks you see there just

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1 represent the individual ITAAC close-outs. They get  
2 much more frequent and bunched up as you move into the  
3 third and fourth year of construction. And that is  
4 going to, that reflects what we expect to happen, the  
5 volume of ITAAC closures to peak around a year out.  
6 We see your 225 milestone just noted there. The all  
7 complete letter, the things Rich talked about earlier.

8 In general, the licensee is going to  
9 provide the schedule for completion of ITAAC and set  
10 to work on those. The NRC is going to inspect those  
11 ITAAC-related activities. The licensee is going to  
12 perform the ITAAC, assemble the documentation package  
13 and submit the closure letter. NRC will verify that  
14 and issue the Federal Register notice. Then we need  
15 to maintain the closed status of that through the  
16 balance of construction until we get the final finding  
17 that they are all met.

18 And then there is the opportunity for  
19 hearing. We will send, one of the licensees will send  
20 their all complete letter. That we hope will trigger  
21 a staff recommendation to the Commission that indeed  
22 all ITAAC are met and to go ahead and make the Section  
23 52.103(g) finding.

24 Now let's pretend we are talking about a  
25 DAC. It is going to be reflected on a schedule when

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1 the ITAAC close-out related activities for this DAC,  
2 let's say I&C are taking place. In the case of the  
3 second item there under the general sequence, NRC  
4 inspects ITAAC-related activities, I would expect that  
5 the DAC for I&C design would result in the licensee  
6 submitting detailed design information sufficient to  
7 support the staff's technical inspection. I shouldn't  
8 use the word review because this is an inspection but  
9 inspection of a technical design information  
10 associated with closure of that DAC, whether it is  
11 software design or logic or whatever for the case of  
12 I&C.

13 The NRC is going to document that  
14 inspection through their SIPMs process. And once all  
15 of that is done, and that is a lot of work because  
16 there is going to be a lot of information necessary to  
17 close out the design of the I&C system. But once all  
18 of that is done, it is all referenceable. And what we  
19 will then be able to do is write our typical ITAAC  
20 closure letter, which is what we have been talking  
21 about. And this DAC enters this process like any  
22 other ITAAC. And we would describe how the DAC was  
23 followed. We would reference the documents that  
24 provide the basis for the conclusion that the DAC was  
25 met, document that in the letter, send it to the NRC

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1 and trigger the Federal Register notice process.

2 As I said from the podium, the case of  
3 DAC, these things necessarily are precursors,  
4 prerequisites to follow-on activities and we would  
5 expect them to be done as quickly as possible. If  
6 they are not done prior to the COL being issued, then  
7 as soon after as possible. Again, to support the  
8 balance of construction.

9 MEMBER CORRADINI: Could I ask a  
10 clarification question, then? So -- I beat you to the  
11 button.

12 MR. BELL: I feel like a game show host  
13 here.

14 MEMBER CORRADINI: So I am curious about,  
15 and so you did a nice -- at least I think I understood  
16 what you are getting at in terms of how things  
17 progress. So let's say within the 225 days there is  
18 some unclosed ITAACs, they have been listed and some  
19 group wants to, feels there is an appropriate hearing  
20 and wants to go back and look at some of these post  
21 COL ITAACs closed, one of them being a DAC ITAAC.

22 How does one get the information to know  
23 if they want to do this or not do this? Is it as  
24 available as the DCD and the COL documentation? I  
25 guess my impression is it could be more circuitous.

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1 Is that an incorrect impression?

2 MR. BELL: I may let Mike help me out but  
3 the principle basis for contentions that an ITAAC in  
4 fact was not met is intended to be these ITAAC closure  
5 letters, which provide the licensees' basis for  
6 concluding that in fact they were. And then the staff  
7 reflects verification by the staff if the staff thinks  
8 it is met. But a member of the public may have other  
9 information or have a concern about something in there  
10 and may raise the issue.

11 So it is really those letters that would  
12 be the primary source of that information.

13 MEMBER BROWN: But based on what you said,  
14 I am just going to take an example. If you look at  
15 one of your letters, B.12 is for a -- B.11. I'm  
16 sorry. I got to look at one I have actually looked at  
17 would help.

18 That covers an instrumentation control  
19 system, control room alarms, displays, controls,  
20 etcetera, etcetera. It lists the design commitment.  
21 It lists inspections and analysis. It says it will be  
22 performed. The acceptance criteria are listed. The  
23 valve has got to open. The pump has got to start,  
24 whatever the things are. There is a determination  
25 basis, which is defined in your document, as well as

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1 the Reg Guide. And but if you read the determination  
2 basis, it effectively references a bunch of closure  
3 packages. There is zero data, zero intelligence in  
4 the package.

5 So if this is the document, and I am  
6 raising this, this is a direct contradiction from what  
7 the Reg Guide says on page five as to what should be  
8 included. The Reg Guide has got a contradiction in  
9 there because in one place it says sufficient detail  
10 and it defines it and then someplace else it says, it  
11 actually says that we expect to be more than just a  
12 check off list. Yet, the way these letters are  
13 formatted, it effectively becomes a check off list,  
14 maybe three or four pages and that is it.

15 So, I am responding in terms of the  
16 question that was asked relative to if the public  
17 wants to know, they have got to go to the site and dig  
18 through this particular one and have access to all of  
19 that, you know, the foot-long stack. Which, and I  
20 will talk about it later, it seems there is, and I got  
21 some comments on their Reg Guide, it seems there is a  
22 level of test result summary, which was requested in  
23 the Reg Guide, as well as a summary of the types of  
24 samples done, if there was a sample, as opposed to a  
25 DAC, you know, it was just an ITAAC and you would get

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1 a sampling basis that should be included. And that is  
2 not covered in the NEI document in terms of how it  
3 gets -- the words are there. They are there but they  
4 are not reflected, you know, if you go up into  
5 section, I forget what it was, eight something. But  
6 it is not reflected in the templates -- excuse me.  
7 Not the templates, the example letters based on the  
8 templates.

9 So, I don't see how the public could ever  
10 derive sufficient because all it is going to say is  
11 see the package, everything was met. And so I think  
12 that is a little bit of a dichotomy in terms of how  
13 the public actually obtains the information.

14 MR. BELL: Well, we did work on this a  
15 fair amount.

16 MEMBER BROWN: Well let me make -- before  
17 you -- let me make on other comment.

18 MR. BELL: Sure.

19 MEMBER BROWN: This is the part that comes  
20 into NRC and so the staff itself has no direct results  
21 to review. And I am not talking about every piece of  
22 inspection paper. I am talking about a reasonable  
23 summary. This addresses your reasonable person,  
24 sufficient information to verify, etcetera. And yet  
25 the examples that would be passed out to industry

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1 don't reflect that. And that to me is a dichotomy.  
2 Well, it is a problem for the staff as well as  
3 providing some background to the public.

4 MR. LAURA: I would just like to talk  
5 about the NRC part and then Russ could address his  
6 side. But the NRC side, remember we have a direct  
7 inspection with a region, you know, has five to seven  
8 inspectors onsite who have months before this letter  
9 identified which of the critical parts they should  
10 inspect and have done inspection, they have written  
11 inspection reports, processed findings, possibly issue  
12 violations, and entered it all into SIPM.

13 So the NRC is onsite, has direct access to  
14 all of this information and we will be inspecting.  
15 So, we are not limited, essentially to -- this letter  
16 is sort of near the end of the process.

17 MEMBER BROWN: I understand that. I got  
18 that out of the rest of the document that you  
19 prepared.

20 The problem that I see is this is the  
21 formal closure letter, notification of ITAAC closure  
22 that comes to headquarters.

23 MR. BELL: Right.

24 MEMBER BROWN: And it is, if you read it,  
25 it is, I'm going use a strong word, --

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1 MR. BELL: Okay.

2 MEMBER BROWN: -- devoid of intelligence  
3 just saying that it was done. I recognize that people  
4 are down there and that people are looking at it or  
5 they had the opportunity to look at it, whether it is  
6 on a sampling basis on an ITAAC, you know pipes being  
7 installed or a cabinet has got, they followed the  
8 drawings, they hooked the wires up in the right place,  
9 etcetera. Or if it is a design acceptance, I don't  
10 want to get into that. That might be a different  
11 venue. But the point being is this is the summary of  
12 record of the closure that certain critical  
13 parameters, such as the closing of the valve when a  
14 set point went above something. Did it or did it not  
15 close? Is there a time requirement for it to be done?  
16 So it has to close within --

17 CHAIRMAN BLEY: If I could just add a  
18 word, Charlie, because this is --

19 MEMBER BROWN: Sure. It's your meeting.

20 CHAIRMAN BLEY: In the regulation it  
21 speaks of, and we skipped this in Richard's talk,  
22 sufficient information. And on the view graph we  
23 skipped it speaks of sufficient information requires  
24 at a minimum a summary of description of the bases,  
25 not just a tag list of documents.

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1                   MEMBER BROWN: That's the rule. All they  
2 do is repeat the rule statement.

3                   CHAIRMAN BLEY: Yes.

4                   MEMBER BROWN: The Reg Guide that they  
5 wrote is not bad. I mean, I actually thought it was  
6 pretty conclusive. It is -- what are the magic words?  
7       The term sufficient information requires that a  
8 minimum of summary description are the bases for the  
9 conclusion of this performed test or analysis. That  
10 the ITAAC determination basis should include a clearly  
11 written detailed process for how the licensee  
12 completed the inspections, tests, analyses, and should  
13 explain how the acceptance criteria were met.

14                   Each inspection test analysis should be  
15 detailed to clearly indicate how it was completed and  
16 should state its result. I mean, that is the Reg  
17 Guide. It is not a regulation but it is the Guide.  
18 Those words are in your NEI document. The results  
19 should then be compared to the acceptance criteria and  
20 should include the basis for the licensee's conclusion  
21 that the acceptance criteria have been met.

22                   That is pretty explicit. Yet, the  
23 examples don't reflect the words in either the NEI  
24 document or the Reg Guide. And that doesn't mean it  
25 has to be a 7,000 page document. It means, you know,

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1 there are certain levels of acceptance data that are  
2 critical from a review. And it is the legal  
3 documentation of the closure that comes in with the  
4 guy's puppy pawing it from the president or the  
5 chairman of the board or whoever signs these things.

6 MR. BELL: We think those are good words.

7 You know, I would say that you picked an example and  
8 we can look at this example. On each of these, we  
9 tried to strike a balance on what the appropriate  
10 level of information was to put in a summary closure  
11 document like this. And it wasn't easy and it wasn't  
12 done lightly. You can easily find yourself on a  
13 slippery slope to providing potentially too much  
14 information to the point where it is not even helpful.

15 The example on separation, you know,  
16 provides a mini tutorial, in my view, of how  
17 separation is achieved in the plant and that is  
18 electrical separation. There is an ITAAC on that.  
19 And a mini tutorial in the ITAAC closure letter to  
20 help the reader understand how separation of, you  
21 know, train A from train B was assured.

22 CHAIRMAN BLEY: Sorry. It is not a one-  
23 size fits all. It shows qualitative inspection  
24 results and things you look for based on inspection  
25 requirements or design requirements. Then there is

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1 quantitative data that verified that the systems will  
2 respond in time, they will respond in the right manner  
3 if the operation has the proper displays, blah, blah,  
4 blah, etcetera, etcetera.

5 Now, do you have to go through and say  
6 every light came on? You know, it is a matter of  
7 thing, there are 24 alarm lights. When tested, all 24  
8 did it. We had 13 tests or 13 other inspections that  
9 were going on. We did a sample on these. There were  
10 four sample inspections done on these four parts of  
11 it. These are the summary results of those. None of  
12 that is reflected in terms of the closure letter.

13 MR. BELL: You are talking -- in fact, I  
14 am glad you have chosen the example.

15 CHAIRMAN BLEY: It plays on this  
16 intelligence type information that comes in.

17 MR. BELL: There is clearly a difference  
18 between determining whether an alarm, an indication  
19 toggles on and off versus assuring electrical  
20 separation has been maintained throughout the plant.  
21 And so you would expect to see more discussion in the  
22 other ITAAC than in this one.

23 In a straight forward case like is the  
24 signal received in the main control room and does the  
25 indicator light, that is fairly straight forward.

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1 And what this says is we have a procedure for  
2 verifying that. It says this procedure contains steps  
3 in which signals simulating various equipment  
4 parameters are entered into the sensor input of the  
5 instrumentation route to confirm that alarms,  
6 displays, and controls exist or can be retrieved.

7 You know, I think there is some substance  
8 there and I think it reflects the nature of the ITAAC  
9 in the sense that this is a fairly simple matter. And  
10 whereas some of the other ITAAC, we can look at those,  
11 what is sufficient to provide an understanding is  
12 considerably different.

13 But you know, I think we and the staff  
14 agreed that this was an appropriate treatment of this  
15 particular situation -- by the way, you mentioned  
16 sampling, there would be no sampling by the licensee  
17 of these alarms displays.

18 MEMBER BROWN: I understand. I was  
19 referring to other sample ITAACs.

20 MR. BELL: That is why you don't see that  
21 --

22 MEMBER BROWN: No, I understand that part.

23 MR. BELL: -- described here. So, you  
24 know, each of these letters is different. All of the  
25 ITAAC are different. It is important to understand

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1 what the ITAAC are seeking. And the letters, by  
2 design, don't go beyond that. If it says to verify an  
3 alarm is received in the main control room, that is  
4 where this letter would stop and it wouldn't try to  
5 infer or go beyond that.

6 MEMBER BROWN: Okay, well let me give  
7 another -- okay, I am going to quit after this one. I  
8 promise.

9 A part of that main steam isolation valve  
10 is shutting. You know, they put a signal in and they  
11 shut. But the main steam isolation valves may, in some  
12 circumstances, be desired to close within a certain  
13 period of time. Just saying that they shut is  
14 insufficient. Saying that they shut within the  
15 required time to demonstrate plant protection or  
16 whatever the circumstances are under the safety  
17 circumstances is a more clarifying statement. It just  
18 doesn't say. Their closure itself is not sufficient.

19 MR. BELL: Is that one of the examples?

20 MEMBER BROWN: Yes, it is one of them.

21 MR. BELL: Where can I turn to see that?

22 MEMBER BROWN: D-11.

23 MR. BELL: See the closure time for the  
24 MSIV, I am hearing Patricia saying behind me, is an  
25 important focus of another ITAAC. And in fact, I just

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1 used this in a presentation in Atlanta. I happen to  
2 know it is five seconds for the AP-1000.

3 MEMBER BROWN: Okay.

4 MR. BELL: And there is an ITAAC that says  
5 you have got to demonstrate that thing will close.

6 MEMBER BROWN: Well, when you write that  
7 closure letter, will it say that it closed in the  
8 correct time or will it just say we performed the test  
9 in a way --

10 MR. BELL: It will say it closed and  
11 required time.

12 MEMBER BROWN: The point I am trying to  
13 make is that the closure letters should provide a  
14 level of technical reasonableness, that letter to  
15 headquarters, to the Commission, to say that these are  
16 there. Just saying we perform the tests and they  
17 passed. See this package 3,000 miles away, I don't  
18 think, personally, I don't think is sufficient.

19 I will stop right there.

20 CHAIRMAN BLEY: Okay, yes. I just looked  
21 through the one you flagged, Charlie. And for the  
22 things they are testing, it seems like it does  
23 describe the things that they are working. I haven't  
24 looked through all of them.

25 So, I certainly agree that these --

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1 MEMBER BROWN: Do you know about another  
2 ITAAC --

3 MR. BELL: I'm glad you mentioned --

4 CHAIRMAN BLEY: -- letters should do what  
5 you say.

6 MR. BELL: -- the MSIV because if I was  
7 better prepared, that is a key point I would have  
8 made. If you look at any one letter in isolation, and  
9 take this one, it mentions MSIVs and you may have  
10 expected to see everything about that MSIV resolved in  
11 this letter when, in fact, there are ITAAC on the  
12 materials for that system, the closure time for that  
13 valve.

14 MEMBER BROWN: Well, I am looking at the  
15 control finding. Okay, there is a family of tests  
16 that are going to execute to see that it performs  
17 satisfactorily in a controlled manner, from a control  
18 function standpoint. And if there is a family and we  
19 get a piece, a little piece here and another little  
20 piece there, and another little piece here and  
21 another, and they all come months apart, you know,  
22 that is like telling me I have got a carburetor and I  
23 have tested the carburetor, it works. I have got a  
24 spark coil. It works. But where do I get closure on  
25 the fact that I actually have an engine that starts?

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1 So that is kind of a piece meal approach.

2 MR. BELL: That almost gets back to the  
3 question we had earlier, you know, why are there so  
4 many ITAAC? They are split up like that. They are  
5 split up I think perhaps not from a perspective of an  
6 implementation and the user needs to understand that  
7 there are many related pieces.

8 It is that final finding that all ITAAC  
9 are met, where you know you are going to have a car  
10 that starts. It is the result of a number of steps  
11 and verifications along the way.

12 CHAIRMAN BLEY: I think what Charlie is  
13 getting at here, is the idea that we do testing during  
14 operations that somewhere you need an integral test  
15 that tests the whole thing together.

16 MEMBER BROWN: Get an answer to --

17 CHAIRMAN BLEY: I'm not sure if that is a  
18 separate ITAAC or if that comes under acceptance.

19 MR. BELL: You bet you.

20 CHAIRMAN BLEY: So there is an integral  
21 test done?

22 MR. BELL: System flow test, if it is a  
23 fluent system.

24 CHAIRMAN BLEY: And we would have to go  
25 back to the tier one documentation on a specific

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1 plant.

2 Eric, you have a comment? Please.

3 MR. OESTERLE: Thank you. Eric Oesterle,  
4 staff.

5 I just wanted to help Russ out and point  
6 out that closing out these ITAAC, if you look at the  
7 flow chart, there is a block number 12 that talks  
8 about the staff confirming that ITAAC have been closed  
9 out and that staff will do that on a family type  
10 basis. But the licensee in their ITAAC closure  
11 letters, they need to specifically identify by number  
12 and letter which ITAAC they are closing. So there is  
13 a unique identifier which tells us and the world what  
14 ITAAC are being closed out and then anyone can go back  
15 and look at the public records and see what the design  
16 commitment for that specific ITAAC is, what the ITA  
17 for that ITAAC is and what the acceptance criteria for  
18 that ITAAC is.

19 So, it is very clear in terms of what the  
20 licensee is required to put in their closure letter to  
21 uniquely identify which ITAAC they are closing.

22 CHAIRMAN BLEY: Thanks. Shall we press  
23 ahead? Oh, I'm sorry. I didn't see you. I had my  
24 glasses off.

25 MR. SPENCER: This is Michael Spencer,

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1 OGC. I just want to add maybe a couple of more  
2 sentences. When the NRC issues a design certification  
3 with the ITAAC and one issues the COL with ITAAC, it  
4 has made the determination at that time that the ITAAC  
5 are necessary and sufficient to demonstrate that the  
6 plant has been constructed and will operate.

7 So in a sense of this consensus of the  
8 acceptability of the ITAAC to verify that the plant  
9 was properly constructed and will properly operate,  
10 that was made when the ITAAC was issued with the  
11 design certification and the COL. And that is all I  
12 will add on that point.

13 CHAIRMAN BLEY: So that means when we do  
14 our reviews of the design certs, we need to look at  
15 all the ITAAC.

16 MEMBER BROWN: But when you get one of  
17 your kids' Christmas toys and it says some assembly  
18 required and all of the individual pieces have been  
19 verified to meet the manufacturer's thing, you get the  
20 box and the screws don't fit in the holes or the nut  
21 doesn't fit or the pole is too long.

22 CHAIRMAN BLEY: I think it is means our  
23 place to review the completeness of the ITAAC is a  
24 design cert review.

25 MR. BELL: A bitter experience there on

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1 Christmas morning.

2 MEMBER BROWN: Not just those. It is  
3 other areas of the --

4 MR. OESTERLE: Eric Oesterle, staff again.  
5 We have had this discussion before where the ITAAC  
6 look at and verify discreet performance requirements  
7 in structure systems and components. And there are  
8 other programs such as the pre-operational start  
9 programs, startup test program that are part of ITP,  
10 which will do more of the system functional testing  
11 that you are looking for, Charlie.

12 MEMBER BROWN: Okay. I understand the  
13 discussion. I appreciate it. Thank you, Dennis. I  
14 am now done.

15 MR. BELL: Shall we go ahead?

16 CHAIRMAN BLEY: As you go forward, the  
17 things, and I see some that are repeating things that  
18 we have heard before. You can fly past those.

19 MR. BELL: I will breeze past those. For  
20 instance, the next slide, handwritten slide number  
21 six, was covered largely by Rich. Section four of our  
22 document talks about the need to provide schedule  
23 information for ITAAC closure-related activities.

24 CHAIRMAN BLEY: I think we are on the next  
25 slide.

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1 MR. BELL: Yes, take us to the next slide.

2 And the rule says you have got to provide  
3 a schedule a year after, within a year after the COL  
4 is issued. Well, frankly, that is not soon enough  
5 from a practical matter. So these folks are already  
6 sharing that kind of information. There are early  
7 ITAAC activities happening even now as reactor  
8 pressure vessels are being fabricated, in Japan, for  
9 example.

10 So that is already happening. A lot of  
11 interactions between the vendors and Region II. This  
12 schedule information is going to be provided, I  
13 believe it will be provided under proprietary or  
14 business sensitive affidavit. And what NEI 08-01 says  
15 is that as we agreed with the staff, golly, this goes  
16 back a few years that there only need to be one  
17 proprietary affidavit when the initial schedule is  
18 provided.

19 The rule requires updates every six months  
20 and every 30 days in the last year of construction.  
21 And those wouldn't require a repeat of the proprietary  
22 demonstration.

23 One of our comments, by the way, in the  
24 Reg Guide, was to include the reference to that Agency  
25 conclusion from a few years ago.

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1           And then there is some information about  
2 the licensee's so-called Level Three Schedule and  
3 again, the bit about required updates. Next slide.

4           MEMBER ABDEL-KHALIK: From the public's  
5 perspective, why should the schedule be proprietary?

6           CHAIRMAN BLEY: Anybody talking has to go  
7 to a microphone please and state your name loudly and  
8 clearly.

9           MEMBER RAY: While he is doing that, let  
10 me just tell you that there are market reasons why a  
11 plant coming on the line is a proprietary piece of  
12 information.

13           MR. WILLIAMS: Matthew Williams, Unistar.  
14 And that is all I was going to say is there are dates  
15 in there that have market considerations. And so it  
16 is just proprietary.

17           MEMBER RAY: If you are selling power into  
18 an electric market, when the plant comes online is a  
19 very sensitive issue. A market is a market, George.

20           MR. BELL: I'll take the next slide,  
21 please.

22           CHAIRMAN BLEY: So let me ask you a  
23 question here.

24           MR. BELL: Sure.

25           CHAIRMAN BLEY: I see the exhibits are

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1 closure letters. You are saying closure letters. But  
2 as I read the flowchart and the like, it would seem  
3 that the licensee would submit completion letters and  
4 the NRC would do closures. Am I missing the point?

5 MR. BELL: It is a fair comment to get our  
6 language consistent. We sometimes interchange closure  
7 and completion. I think they mean the same thing. It  
8 is clear that the NRC's indicator of that is their  
9 Federal Register notice. We are calling ours an ITAAC  
10 closure letter but we certainly need to be sure we are  
11 consistent and not confusing.

12 MEMBER ABDEL-KHALIK: Back to the schedule  
13 issue. So the only firm point that the public would  
14 become aware of the schedule is the 225 day notice?

15 MR. BELL: That would be an indicator that  
16 the licensee consider themselves close within that  
17 period of time of a schedule fuel load date. Correct.

18 MEMBER ABDEL-KHALIK: And prior to that,  
19 people wouldn't know whether it is within a year or  
20 five years or ten years.

21 MR. BELL: Well, even now, the applicants  
22 moving forward are talking about the 2016, 2017 time  
23 frame to bring power. So I think in those broad terms  
24 and Harold if you agree, companies would, I think,  
25 necessarily have to talk in some broad terms about the

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1 expected time frame for construction but that the  
2 specifics may be more sensitive.

3 Section five is just on the licensee's  
4 process, which will be a considerable one in terms of  
5 assuring all the documents are in order, they are  
6 complete. There will be various checks and balances,  
7 as this letter proceeds up to an appropriately high  
8 signature for that closure letter to go out. There is  
9 a standard format proposed for the ITAAC document,  
10 which is in the document. I think I will not bore you  
11 with that. It is very straight forward.

12 And a couple of references to the  
13 importance of the licensee's problem identification  
14 and resolution process. I think it reflects that if  
15 there are deficiencies identified that are material to  
16 a conclusion that the ITAAC is or is not met, that  
17 that deficiency would need to be resolved prior to  
18 closing out that ITAAC. And the licensee's process  
19 for doing that is the problem identification and  
20 resolution program.

21 CHAIRMAN BLEY: And that is not something  
22 staff reviews, is it?

23 MR. BELL: In fact, it is.

24 CHAIRMAN BLEY: It is?

25 MR. BELL: I should mention, put a plug in

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1 for a separate NEI document, it happens to be  
2 sequentially the very next one NEI 08-02 on this  
3 process to assure consistent level of implementation  
4 of problem identification and resolution. Think  
5 corrective action program.

6 And the staff has that under review and we  
7 expect to get a similar endorsement to that. It may  
8 come before this committee if you express, certainly  
9 if your express --

10 CHAIRMAN BLEY: Does that require  
11 notification to NRC when problems are identified?

12 MR. BELL: This is a licensee program. It  
13 is an open book in terms of the corrective action  
14 program log, if you will, onsite. I am not -- let me  
15 look back. I don't think you make a -- notify the NRC  
16 when -- except in certain cases that would trigger  
17 reporting under 50.22(e) or Part 21.

18 CHAIRMAN BLEY: But it is open for the  
19 inspectors.

20 MR. BELL: Yes, it is.

21 CHAIRMAN BLEY: Okay, go ahead.

22 MR. BELL: I will take the next slide.  
23 And this gets back to what we have been talking about,  
24 Guidance on sufficient information. In fact, let's  
25 see, these are the letters that provide a window for

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1 the public under the ITAAC process, together with the  
2 225 day notification provides information that the  
3 public will use to participate in the 103 hearing  
4 opportunity.

5           These provisions requiring the closure  
6 letters were added to Part 52, was that 2006 when we  
7 finished that? Honestly, we would have preferred the  
8 word "sufficient" not to be in the regulation.  
9 Sufficient is something you describe in a guidance  
10 document. But nonetheless, this guidance document  
11 does talk about sufficient. We have a template for  
12 the letters and a number of examples of what we think  
13 for a variety of what we think are representative  
14 ITAAC, what a sufficient closure letter looks like.

15           In terms of you have to have some idea of  
16 who the audience is and Rich and Mark mentioned a  
17 reasonable person. Well, what is that? It is  
18 somebody with knowledge, education, or experience  
19 concerning the matter at hand. If somebody is paying  
20 attention to this, we are going to assume they are  
21 savvy, they are interested. They might have some  
22 resources available to them. And we don't have to, we  
23 don't explain everything about the ASME code when we  
24 make a reference to meeting the ASME code, Section 3.

25           So we needed to have some understanding of

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1 the audience to, again, set the bar, set the level of  
2 detail for these letters. And you can kind of see  
3 from the examples where we ended up.

4 MEMBER BROWN: And I ask this question  
5 relative to your document which talks about reports  
6 that exist and conclude that acceptance criteria are  
7 met. You reference ASME codes, inspection  
8 requirements, material, etcetera, etcetera, etcetera.

9 And I ask it in the context of any what I call  
10 validation by NRC or the region inspectors or whoever  
11 that gets information that comes in that is certified  
12 by ASME test reports from the vendor that manufactured  
13 it.

14 Now, the vendors are certified to the ASME  
15 requirements, I presume. Otherwise, they are not  
16 allowed to do it. So they have got whatever paper  
17 that says that. Is there any subsequent follow up or  
18 do people just take that, the guys certified by ASME  
19 to follow that and say do a test on insulation systems  
20 or piping or materials or what have you. He submits  
21 the report, the certification along with, you know,  
22 the requirements when he ships the material or what  
23 have you and he says I did the tests in accordance  
24 with the ASME test, whatever the thing is.

25 Does anybody go back, and I asked the

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1 question based on direct experience from a vendor who  
2 is certified to do tests on particular materials that  
3 we were using in a project for which I worked. We  
4 got the recommendation in from the vendor to the  
5 design agent, then came to the client for whom it  
6 worked, along with, they made the mistake of sending  
7 in the actual test data from all the materials.

8 Not having anything to do for a couple of  
9 days, got the ASME code, got the equation, got the  
10 test elongations, all that stuff, ran it through.  
11 Number one, they put the data into the wrong places.  
12 They reversed equations, got them wrong, so that they  
13 had numerators and denominators reversed. It turns  
14 out there was enough margin that the stuff was okay  
15 anyway, once they corrected it. And lastly but not  
16 least, when you looked at the data pages, the actual  
17 test data pages, data was changed by a supervisor from  
18 the test data without any notations at all as to where  
19 they got the new data.

20 So, and this was a certified guy. You can  
21 go look. They went and looked up his paperwork. It  
22 is all there and all that kind of stuff. And so I  
23 only say that because I am skeptical a little bit.  
24 Not that there is anybody -- there was nobody trying  
25 to do anything wrong. It is just that they made

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1 errors and nobody downstream had done any spot checks.

2 We subsequently got it all fixed and it came out okay  
3 but it was kind of a black eye for a couple of folks.

4 So, I only ask it in the context it looks  
5 like we are accepting these but is there some  
6 oversight by our NRC inspectors to ensure, at some  
7 point, that in whatever regions, that in fact those  
8 codes are being followed as they are supposed to?

9 MR. BELL: In fact there is but also the  
10 licensee bears the responsibility for the performance  
11 of their vendors and their contractors. And so they  
12 would perform audits of that vendor and satisfy  
13 themselves that they are implementing code  
14 requirements in this case properly.

15 Does that guarantee there would be no  
16 mistakes such as you have experienced? I suppose not  
17 but a level of confidence ought to be there regarding  
18 that.

19 MEMBER BROWN: I am not saying 100  
20 percent. I am just saying 75 --

21 CHAIRMAN BLEY: But I think, maybe it was  
22 where you were, I think if erroneous letters are  
23 submitted, that is probably suitable for action if NRC  
24 so decides and maybe even beyond that, if it plainly  
25 falsified.

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1 MR. BELL: Absolutely. If a situation  
2 like that is identified --

3 MEMBER BROWN: They weren't really  
4 falsified. They were just, you know, people --

5 CHAIRMAN BLEY: The data changed? I was  
6 listening to it and it sounded like an allegation.

7 MEMBER BROWN: We knew who did it. Well,  
8 Dennis, they initialed it so you knew who did it.

9 CHAIRMAN BLEY: Oh, okay.

10 MEMBER BROWN: There was line a through it  
11 and new data was put in and there was initials. But  
12 you know, where did they get the new data? There was  
13 no information at all as to where they got that.

14 CHAIRMAN BLEY: I think we will go ahead  
15 but I mean --

16 MEMBER BROWN: Go ahead.

17 CHAIRMAN BLEY: -- I've heard they have an  
18 inspection program so they are spot checking these  
19 things.

20 MEMBER BROWN: Well, I just -- I had no  
21 idea. I know what in the other areas, I was just  
22 asking because I don't have any familiarity with how  
23 this area works from my past history, that is all. I  
24 have a little bit of skepticism.

25 MR. BELL: I will take the next slide.

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1           There is a section on the 225 day  
2 notification and, as you all know, it is required to  
3 address the ITAAC that are not yet complete at that  
4 point in the construction process.

5           In this case, it probably looked like a  
6 cover letter and then would have many parts to it or  
7 enclosures not too much different than the ITAAC  
8 closures letters themselves, except instead of taking  
9 credit for activities that have been completed, this  
10 letter would describe well, to some extent activities  
11 have been completed but there are activities yet to be  
12 completed as well and will identify --

13           CHAIRMAN BLEY: Russ, I have to introduce  
14 you to some of the unfairness of coming to our  
15 committees. Your hour is about up. It is because we  
16 ask a lot of questions but that is what we do. So I  
17 am going to have ask you to be a little flexible in  
18 picking out what is really important and trying to  
19 push toward the end here.

20           MR. BELL: I'll do that. I will just see  
21 -- let's go to the next slide.

22           We have had some talk about these topics  
23 and I know I will get cut short if we get too deep  
24 back into them but we do address the need to maintain  
25 the validity of the ITAAC, once they are closed, as I

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1 have mentioned. There is supplemental guidance being  
2 developed now and discussions ongoing with the staff.

3 To us, this is a separable and separate issue from  
4 ITAAC closure. If you think of ITAAC closure and  
5 separately think of ITAAC maintenance, what you have  
6 before you is guidance on ITAAC closure.

7 What we are continuing to discuss with the  
8 staff and what we have agreed is appropriate to  
9 supplement the guidance when we are ready is on the  
10 ITAAC maintenance piece and the activities leading up  
11 to that final finding by the Commission. So that is  
12 what is going on now.

13 There is the section on DAC. They are  
14 closed, as I say, the same as ITAAC. The design would  
15 be, the additional design information would be  
16 reviewed as part of the engineering design  
17 verification process. And again, a separate effort,  
18 not this one, underway to identify the level  
19 information necessary to close an I&C DAC. What is  
20 the technical information that the NRC is going to  
21 require in order to close an ITAAC, to close that DAC?

22 And a little bit like I think Eric was  
23 saying, for plants that follow the first guy through,  
24 we think that much can be learned from the ITAAC  
25 closure letters and ITAAC closure process of the first

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1       guy through and that that ought to provide a good path  
2       to follow for both the licensee and the NRC.

3                 With that, I start to get into the  
4       templates which we have perhaps talked enough about.  
5       We even, thanks to you, looked at a couple of examples  
6       which I was going to take you to. So I might pause  
7       right there and see what the committee and staff want  
8       to do with the rest of the time.

9                 CHAIRMAN BLEY: I think there is no rest  
10       of the time. Let me turn to my colleagues. Are there  
11       any of these specifics that you would really like to  
12       get into now? I think we have talked about most of  
13       the things I see here. I'm not sure what the void for  
14       these were comments on the Reg Guide. They were  
15       comments on the Reg Guide but I think James' talk is  
16       aimed at the public comments, too. So maybe we can  
17       pick these ideas up in his talk.

18                MR. GASLEVIC: Very well.

19                CHAIRMAN BLEY: If it is okay with you, I  
20       think we will move ahead and give James the  
21       opportunity to catch us up and I am sure my colleagues  
22       will help in that.

23                MR. GASLEVIC: Good afternoon. I am Jim  
24       Gaslevic and this section will be the overview and  
25       public comments review for Reg Guide 1.215.

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1           Our Reg Guide is used as a vehicle to  
2 endorse the NEI 08-01 industry guidance. The Reg  
3 Guide was constructed to follow the content of the  
4 industry guidance and to follow its table of contents.

5           In addition, in the appendices, we include text of  
6 52.99 and we also include the flowchart describing  
7 52.99 and the 52.103(g) process. Slide 25.

8           The outline. The introduction begins by  
9 stating that the guide describes a method that the  
10 staff considers acceptable for use in satisfying the  
11 requirements for documenting the completion of ITAAC.

12          The discussion section of the Reg Guide, Section B  
13 includes a short background on the Reg Guide's  
14 objective to provide guidance on licensee  
15 notifications to the NRC for completed and uncompleted  
16 ITAAC. The section then discusses the development of  
17 08-01 from the applicable regulations, mainly 52.99.  
18 It also lists the industry guideline 08-01 Table of  
19 Contents.

20          This section also takes each section of  
21 the guideline and provides a brief description of what  
22 is included. During its development our Reg Guide  
23 research recommended that enough description is put in  
24 our Reg Guide so that it can -- if someone picked up  
25 and started reading the Reg Guide without NEI's

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1 document to back it up, they would still have a good  
2 understanding of what is included in the guide.

3 And we described before that the  
4 appendices include the flowchart and also the text of  
5 52.99.

6 Section C, the regulatory position  
7 provides a description of how the guidance should be  
8 implemented, how the examples and templates could be  
9 applied. And Section D is the implementation section.

10 It describes the methods described in the guide that  
11 will be used in evaluating compliance with the  
12 applicable regulations. Finally the last bullet,  
13 references. A short list of reference is included for  
14 our Reg Guide.

15 CHAIRMAN BLEY: I guess a minor little  
16 point. Given what is in the Reg Guide, including the  
17 flowchart and description, I think staff wouldn't say  
18 that closure is separate from maintaining validity.  
19 And the last step before we get to closure is that all  
20 of these still do maintain their validity. Am I fair  
21 in saying that?

22 MR. GASLEVIC: Could you repeat that one  
23 more time?

24 CHAIRMAN BLEY: Just picking on Russ a  
25 little bit. Russ said that ITAAC closure is really a

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1 separate issue from maintaining validity and we are  
2 here to talk about closure. Actually, the Reg Guide,  
3 in talking about closure, including on the flowchart,  
4 says we do have to have validity, maintain validity  
5 when we get to the point the two actually closed, the  
6 NRC actually closed.

7 MR. GASLEVIC: Yes, staff feels that way.

8 CHAIRMAN BLEY: Thanks. Go ahead.

9 MR. GASLEVIC: Next slide, 26.

10 There were public comments on the Draft  
11 Guide 1204, which is 1.215 Reg Guide. The 60-day  
12 public comment period ended on May 13th. Comments  
13 received were only from two stakeholders, a gentleman  
14 from Oak Ridge, a Ph.D. from Oak Ridge, the address is  
15 Oak Ridge.

16 MEMBER APOSTOLAKIS: November 3rd? The  
17 laboratory?

18 MR. GASLEVIC: No, the address is Oak  
19 Ridge, Tennessee.

20 MEMBER APOSTOLAKIS: Oh.

21 MR. GASLEVIC: But I didn't see laboratory  
22 on there.

23 CHAIRMAN BLEY: From him. From an  
24 individual.

25 MR. GASLEVIC: Yes. And the second

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1 stakeholder was NEI had the majority of the comments.

2 MEMBER APOSTOLAKIS: This man qualifies as  
3 a member of the public?

4 MR. GASLEVIC: Yes. NEI comments  
5 comprised the majority.

6 The comment requiring, the only comment  
7 requiring a level of effort, significant level of  
8 effort, would involve the definition of "as-built."

9 MEMBER APOSTOLAKIS: Since you made  
10 editorial comments, Russ, why did you tell them to  
11 change the uncomplete?

12 (Laughter.)

13 MR. BELL: I have gotten comfortable with  
14 the term but I have been working with it for a number  
15 of years.

16 CHAIRMAN BLEY: Jim, please go ahead.

17 MR. GASLEVIC: Okay. So the next slides  
18 discuss how the Reg Guide calls attention to some  
19 additional language in NEI's guideline. Section 3.1.4  
20 of 08-01 that adds language to the definition of "as-  
21 built". Next slide, 27.

22 The definition of "as-built" is important  
23 because the term appears in many ITAAC. The  
24 inspections, tests and analyses of SSCs should  
25 ordinarily be performed in their final, in-place

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1 location. But we understand and we can see where it  
2 might be impractical to complete some of those tests,  
3 as Russ spoke to before. But in those cases, it could  
4 be appropriate to perform those inspections at a  
5 separate location, potentially at the vendor site.

6 Next slide. Slide 28.

7 Currently, certified designs have the  
8 following definition for "as-built." It means the  
9 physical properties of the SSC following the  
10 completion of its installation or construction  
11 activities at its final location at the plant site.  
12 COL licensees referencing these certified designs are  
13 bound by the definitions in that design cert, rather  
14 than definitions of 08-01. Next slide, please.

15 NEI 08-01 modifies this definition to  
16 include that underlined sentence. "Determination of  
17 physical properties of the as-built structure, system,  
18 or component may be based on measurements,  
19 inspections, or tests that occur prior to  
20 installation, provided that subsequent fabrication,  
21 handling, installation, and testing do not alter the  
22 properties." Slide 30.

23 Staff believes that the NEI 08-01 document  
24 definition of "as-built" could form the part of a  
25 basis for a DCD definition of "as-built" in future

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1 design certs. This future definition or this  
2 definition to be used in future design certifications  
3 could include the language that is presented in  
4 Section 3.1.4 of the guideline, which brings us to  
5 slide 31.

6           Essentially, 3.1.4 looks at using these  
7 tests at an other than in-place location to satisfy  
8 ITAAC closure from an impracticality standpoint. And  
9 so that "for these specific items where access to the  
10 component for inspection or test is impractical after  
11 installation in the plant, the ITAAC closure  
12 documentation . . . will be generated at the vendor  
13 site and provided to the licensee."

14           CHAIRMAN BLEY: No, let me -- you are  
15 going to get there in a second. Back on slide 28, you  
16 said for COLs referencing already certified designs,  
17 they are bound by the previous definition.  
18 Practically, how do you deal with that with things  
19 that you can't inspect? It sounds contradictory to  
20 me.

21           MR. GASLEVIC: Well, our recommendation  
22 for expanding that definition of "as-built" will be  
23 for future design certifications. And COL holders of  
24 already certified designs are bound by the definitions  
25 there.

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1 CHAIRMAN BLEY: So what do they do when  
2 they get things that can't be inspected onsite? They  
3 are going to have to tear them apart?

4 MR. OESTERLE: Eric Oesterle, staff.  
5 There is a process in place already where the COL or  
6 the licensee can request a departure from the DCD.

7 CHAIRMAN BLEY: Okay, so it is going to  
8 have to be a departure.

9 MR. OESTERLE: Yes, that is --

10 CHAIRMAN BLEY: Okay. Fair enough.

11 MR. OESTERLE: There is a process in place  
12 to handle that already. But like Jim was saying, even  
13 for those designs that are already certified, we do  
14 recommend going with this updated definition to be put  
15 in their tier one, if they are coming in with an  
16 amendment.

17 CHAIRMAN BLEY: Okay, good. But for the  
18 ones who aren't, it is an exception. Okay.

19 MR. OESTERLE: Yes, for the ones who  
20 aren't, I mean, they are still under review. We have  
21 been having discussions with some of those DC  
22 applicants, not all of them, but we do have some  
23 thoughts about and including discussions of this "as-  
24 built" definition in future generic, design-centered  
25 working group meetings.

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1 CHAIRMAN BLEY: Okay, thanks, Eric.

2 You have one more.

3 MR. GASLEVIC: Final slide, 32.

4 MEMBER APOSTOLAKIS: The underlined  
5 sentence, access to the component is impractical after  
6 installation, the ITAAC closure documentation will be  
7 generated at the vendor site. Then because on 29,  
8 again, the underlined, the determination of physical  
9 properties prior to installation should be determined,  
10 provided that subsequent activities do not alter the  
11 properties.

12 So the way I understood that is that the  
13 physical properties will be defined before the  
14 installation and you don't expect installation or  
15 other activities to change those. These were  
16 submitted to you. Correct? To the NRC, the  
17 properties.

18 MR. GASLEVIC: The properties will be  
19 submitted to the licensee. Now, the results of those  
20 tests will be included with the ITAAC closure letter  
21 to the NRC.

22 MEMBER APOSTOLAKIS: But it says on 31,  
23 the ITAAC closure documentation will be generated.  
24 When will this happen? After everything is installed?

25 MR. GASLEVIC: In the cases that we are

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1 calling to attention here, that might be during  
2 fabrication. It might be during some modular  
3 fabrication.

4 MEMBER APOSTOLAKIS: But not after  
5 installation.

6 MR. GASLEVIC: Well, it is preferable that  
7 documentation, those tests, those analyses are  
8 performed after they are installed, after their final  
9 in-place installation.

10 But where it is impractical, we are  
11 overseeing that there needs to be an allowance to do  
12 those tests potentially at the vendor location. This  
13 additional language in 3.1.4 just spells out that this  
14 might be acceptable if it is impractical to make those  
15 measurements or to try to disassemble and make  
16 measurements of these things after it is finally --

17 MEMBER APOSTOLAKIS: The first part of the  
18 sentence says if it is impractical after installation,  
19 the ITAAC closure. So the implication is that the  
20 ITAAC closure documentation will also be done after  
21 installation. Is that what you mean?

22 Well again, for these specific items where  
23 access to the component is impractical after  
24 installation in the plant, the ITAAC closure  
25 documentation will be generated at the vendor site.

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1 The implication is after the installation.

2 MR. GASLEVIC: The ITAAC wouldn't be --  
3 correct me if I am wrong, the ITAAC wouldn't be  
4 considered to be closed until after on-site, in-place,  
5 as-built assembly.

6 MEMBER APOSTOLAKIS: The understanding is  
7 correct. That is what you mean. Okay. If that is  
8 what you mean, that is what you mean.

9 MEMBER ABDEL-KHALIK: But doesn't this  
10 sort of imply that the NRC's evaluation of successful  
11 completion of ITAACs is pretty much pro-forma in the  
12 sense that it doesn't allow you to say no, this does  
13 not meet expectations and, therefore, you have to yank  
14 it out?

15 MEMBER APOSTOLAKIS: You see on 28, on 28  
16 I understand the way you state it that all this will  
17 be done before installation, so there will be time to  
18 change things if the staff believes they should be  
19 changed.

20 But on 31, it is confusing me a little  
21 bit, unless closure documentation, that is really the  
22 literal interpretation. In other words, we have done  
23 everything. You guys have approved it already and all  
24 we are doing now is documenting what we have done.

25 MR. GASLEVIC: Well not necessarily

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1 approving.

2 MEMBER APOSTOLAKIS: You must have already  
3 approved it because it is installed.

4 MR. GASLEVIC: Well, it is installed but  
5 the closure documentation potentially might not have  
6 been submitted to us for verification. So the  
7 licensee can complete some fabrication work at an  
8 offsite location.

9 If it is foreseen that a measurement or a  
10 test is just impractical to do after it has finally  
11 been installed inside a valve throat or something like  
12 this, those tests that were completed to verify or  
13 those tests that were completed to measure the inside  
14 of that valve diameter, the results of those tests  
15 could be used in the closure documentation that the  
16 licensee would submit to us after installation of the  
17 valve onsite or the modular fabrication onsite.

18 CHAIRMAN BLEY: Now, NRC will have an  
19 inspection presence, I would assume, at least to some  
20 extent at the vendor sites where this sort of thing is  
21 done. Is that correct?

22 MR. LAURA: Yes, that is true.

23 CHAIRMAN BLEY: So, it will be pretty much  
24 like all the others. You will have inspectors there.  
25 Then in the end, the paperwork will come.

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1 MR. LAURA: Right.

2 MEMBER ABDEL-KHALIK: If you look at the  
3 charge, to me, closure documentation means that the  
4 licensee will submit 52.99(c)(1) letter. And that  
5 happens before the NRC makes the determination as to  
6 whether or not the ITAAC has been successfully  
7 completed.

8 So, if this letter is generated at the  
9 factory and the component had already been installed,  
10 you are sort of presuming that the NRC will find this  
11 acceptable. Or are you allowing the possibility that  
12 if you find it unacceptable, they will just have to  
13 go out and yank it out?

14 CHAIRMAN BLEY: Eric, you looked anxious.

15 MR. OESTERLE: Yes, I just wanted to  
16 clarify that this reference to the ITAAC closure  
17 documentation is the licensee's documentation.  
18 However, the regulations do provide allowances for the  
19 licensee to install their equipment even prior to us  
20 verifying that yes, we believe that you have completed  
21 the ITAAC and issuing our Federal Register notice.  
22 But there is risk involved in doing that but the  
23 regulations do provide for those allowances.

24 MEMBER ABDEL-KHALIK: Yes, there is  
25 certainly risk involved in that and that sort of

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1 brings me to the issue of the concerned raised by  
2 industry as to the timing of NRC actions as to the  
3 determinations that the ITAAC had been successfully  
4 completed. The longer time you take to make that  
5 determination, the higher the risk that the applicant  
6 will involuntarily assume.

7 So how do you resolve that?

8 MR. LAURA: Well, there is a lot of  
9 planning that is being done. And clearly, it will be  
10 challenging when a lot of ITAAC or activities are  
11 going on parallel. But you know, the staff also,  
12 there is another regulation, a DOE regulation that  
13 holds the staff somewhat accountable on DOE standby  
14 support that our performance, if it results in a major  
15 delay that is not explainable, then DOE has a program  
16 that might for certain select few plants pick up some  
17 of those costs.

18 So you know, we have every incentive to do  
19 an efficient and effective review when we get the  
20 information. And that will require a lot of planning  
21 on our part and it will be challenging.

22 MEMBER APOSTOLAKIS: Let me understand  
23 this. There is a situation where you know you cannot  
24 inspect after installation. Are you going to be  
25 notified in advance by the applicant, here is this

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1 particular location, this is what we plan to do and  
2 you review it and approve? Because maybe only the  
3 documentation is done after the fact but you already  
4 know what they are planning to do and you have  
5 approved it. You avoid the problem that Dr. Abdel-  
6 Khalik --

7 MR. LAURA: Yes, Region II has been  
8 spending a lot of effort and time in this are trying  
9 to identify activities early on that might be  
10 performed at vendor facilities like in Japan or  
11 somewhere else, where they fabricate major components.

12 And as part of the vendor oversight  
13 program, the Region is coordinating very closely with  
14 the vendor group. In fact, they are going out and  
15 looking at these. And SIPMs will be the repository  
16 for all of that information, any insights we get for  
17 specific ITAAC. And then later down the road, when  
18 after it is installed in the plant, we will have a  
19 little bit of a record on that particular ITAAC,  
20 perhaps going all the way back to where it was  
21 fabricated, you know, if we choose to inspect those.

22 But that doesn't mean, necessarily, that  
23 we are going to go to every vendor facility around the  
24 world for every ITAAC. We will have to risk-inform  
25 and make the best decisions based on the resources at

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1 hand. And it is currently a big issue right now that  
2 seems to be working through internally.

3 MEMBER APOSTOLAKIS: Okay.

4 MEMBER ABDEL-KHALIK: Is there explicit  
5 guidance as to how long it should take the NRC to make  
6 the determination that an ITAAC had been successfully  
7 completed, other than that you will do the job as  
8 efficiently as you can?

9 MR. LAURA: No, we have not predefined  
10 that you have to do it in two hours. You know, each  
11 ITAAC is different and unique. And each letter, as a  
12 result will be, some could be as short as one page,  
13 while others might be eight pages. So there is no,  
14 you know, --

15 MEMBER ABDEL-KHALIK: But I am forced to  
16 go back to our discussion on DAC. You know, timely  
17 feedback as to the acceptability of the design  
18 approach that is taken in a specific DAC is very  
19 consequential because if you go back and tell them  
20 now, that is not good enough, they have to go back to  
21 the --

22 MR. LAURA: Well, the longer an applicant  
23 or licensee takes in resolving DAC, the more at risk  
24 they are and I think that everyone is aware of that.

25 We would all prefer that it is all

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1 resolved in option one up front and early. But if  
2 that rides and goes later into the project, they are  
3 at risk.

4 CHAIRMAN BLEY: Let me ask it another way.

5 Is there any basis under which staff might be  
6 receptive to, in specific cases, request to expedite  
7 the closure of certain DAC because it would be  
8 actually helpful? That might address the comment that  
9 NEI had.

10 MR. LAURA: I think like for example, the  
11 I&C working group, which is really one of the key  
12 groups, I think that having discussions like that with  
13 industry and their number one issue is DAC, what does  
14 it mean, you know, what is the life cycle approach?  
15 Where do you draw the line? What is the timing of it?

16 So, I think those discussions are occurring but with  
17 the technical groups in the I&C area, they would be  
18 the lead for that.

19 MR. TAPPERT: Yes, John Tappert. I would  
20 just like to reinforce that our review and inspection  
21 isn't triggered by the 52.99 closure letters. I mean,  
22 the interaction on these ITAAC is really throughout  
23 the life cycle of the construction. So we are going  
24 to have inspectors out there looking at that.

25 In fact, this week we have inspectors out

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1 in Japanese Steel Works looking at some stuff that may  
2 ultimately be involved in ITAAC. So, it is not that  
3 we are going to get to the ITAAC closure letter, we  
4 are going to do review, and then we are going to do  
5 our inspection record, and based on that we are going  
6 to make a judgment that it is closed. But that is not  
7 a de novo review. I mean, there is a lot of work.  
8 In fact, most of the heavy lifting, most of the review  
9 and inspection is going to be done long before that.

10 So if there are issues that arise, if  
11 there is findings that the inspectors have, those are  
12 going to be revealed at the time those observations  
13 are made. We are not going to be squirreling them in  
14 our back pockets waiting for that letter to come in to  
15 say now you have got to rip it out.

16 So the point is, it is a period of  
17 engagement, not -- because these closure letters are  
18 going to be showing up pretty late in the process.  
19 And I think the lion's share are going to be showing  
20 up in the last year of construction. So, if there is  
21 construction issues that are occurring before then, we  
22 want to share those observations so that they would be  
23 corrected and a quality project is built.

24 I think that is all I have. Thanks.

25 CHAIRMAN BLEY: Thank you.

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1                   MEMBER ABDEL-KHALIK: But nowhere in the  
2 -- I mean, maybe this is the de facto process, but  
3 nowhere in the Guide does it specify that explicitly.

4                   MR. TAPPERT: The guidance goes to the  
5 final regulatory requirements for documentation. You  
6 know, when we tried to get at what does a sufficient  
7 letter look at. But the record that the NRC staff is  
8 going to use to make the judgment that the ITAAC is  
9 complete is the letter plus their inspection record.  
10 And that is what goes on over the five years. That is  
11 really our inspection program, more so than the ITAAC  
12 closure process itself. And I think that is what we  
13 need to develop more to share with the approach for  
14 DAC is, and we receive that.

15                  MR. BELL: Mr. Chairman, just one minute?

16                  CHAIRMAN BLEY: Certainly.

17                  MR. BELL: Eric went through the comments  
18 on the Reg Guide and he highlighted the one. And the  
19 reason he highlighted it is because we may disagree,  
20 it appears we disagree, on the nature of the  
21 definition of "as-built." And I just wanted to  
22 explain what we think the issue is.

23                  If you turn to page 29 on the NRC package,  
24 that looks to us like a good definition. The terms in  
25 there are clear. We think this is a very

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1 implementable definition, one that would be  
2 consistently understood by a range of users. And we  
3 are concerned for our own Guidance document, we  
4 carried this definition but we included the  
5 explanatory language that is underlined on 31 in the  
6 body of the guideline itself, not in the definition.  
7 We think that is appropriate.

8           The language on 31 explains how to use the  
9 definition. It includes a term like impractical. And  
10 our concern is about using a term like that, which  
11 itself is subject to interpretation in a good  
12 definition. Our preference would be to keep that as  
13 explanatory guidance and not incorporate it in the  
14 definition.

15           The other effect of incorporating a  
16 definition is the NRC on slide 30 says that the  
17 additional language should be incorporated in the DCD.

18           Not stated here but I understand that these are Tier  
19 One, these definitions go into Tier One, so-called, of  
20 the design certification document, which essentially  
21 is equivalent to rule language. So is "impractical"  
22 the kind of language you want in good regulation? And  
23 I think we try and avoid that.

24           And so, that is the nature of the  
25 difference between me and the staff on this. I did

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1 want to take just a moment to --

2 CHAIRMAN BLEY: Okay. Now, as I  
3 understand it, none of this language really effects  
4 the two documents we are here looking at. This is a  
5 proposal for what might change in the future with  
6 respect to what is required in DCDs. Is that right?

7 MR. BELL: Both of these definitions are  
8 in 08-01, --

9 CHAIRMAN BLEY: Okay.

10 MR. BELL: -- and the Reg Guide. And for  
11 consistency, for instance, Westinghouse, they are in  
12 the process of amending their certification. They  
13 went and they took the original language, which dates  
14 to, I think, 1994, 1995, of 1996 and included the  
15 additional language that we have agreed to through the  
16 NEI 08-01 process but it stopped short and did not  
17 include the explanatory language that contains the  
18 softer language that is more subject to  
19 interpretation.

20 I know that Westinghouse feels that that  
21 is not appropriate for Tier One and we agree.

22 MR. OESTERLE: And this is Eric Oesterle  
23 again to give you the staff perspective. And to do  
24 that, a little bit of history is required to go back  
25 to when and how the definition of "as-built" was

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1 arrived at in reviewing design certifications.

2 I wasn't there, so I am just going to  
3 share the knowledge that was transferred to me with  
4 you all. During the staff reviews of the design  
5 certification applications for ABWR and System 80+ is  
6 when the original definition of "as-built" was  
7 determined and, as provided in the slides, it was for  
8 the inspections tested analyses to be performed on  
9 equipment in the final as-installed location at the  
10 plant site. Okay?

11 During all of those discussions and I am  
12 told even up through discussions on AP-600 and AP-  
13 1000, none of the discussions included talk about  
14 modular construction. So, let's put the modular  
15 construction part in the parking lot.

16 Over the past several years, we all have  
17 come to the realization of the impracticality in  
18 certain instances of performing the ITA on certain  
19 equipment in the final as-installed location at the  
20 plant site. And so that was the genesis or motivation  
21 for updating this definition of as-built to provide  
22 some flexibility and do the practical thing of  
23 allowing the ITA to be performed on pieces of  
24 equipment in locations other than the final as-  
25 installed location at the plant site. But we wanted

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1 to put some limitations on that so that it was just  
2 limited to cases where it was impractical to do so  
3 because we didn't want ITA to be performed all over  
4 the country or all over the world. We wanted there to  
5 be some limitations and some controls.

6 So we the staff do believe that for design  
7 certifications that the definition of as-built that is  
8 in the NEI guidance document, including any caveats  
9 which appropriately limit the performance of ITA in  
10 locations other than at the final installed location  
11 at the plant site to only those areas that are  
12 impractical. We believe that those need to be  
13 included in the Tier One definition for as-built of  
14 the DCD because we all know that regulatory guidance  
15 is just regulatory guidance. And we acknowledge that  
16 and there are other approaches that can be used to  
17 meet the regulations, other than what we specify in  
18 the regulatory guidance. So we want to make it clear  
19 and put the limits on it by including it in the Tier  
20 One definition for as-built.

21 CHAIRMAN BLEY: Thank you. If you folks  
22 would, it is NEI's position that they would like to  
23 see the Reg Guide modified before it comes out?

24 MR. BELL: Yes.

25 CHAIRMAN BLEY: Yes, okay. Even though

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1 they quote the definition that you like best as part  
2 of the Reg Guide?

3 MR. BELL: The part that we would leave  
4 apart from the definition is that explanatory language  
5 that we think, that through guidance and doesn't need  
6 to become part of the regulation.

7 MEMBER STETKAR: I have a quick question  
8 not related to the definition of as-built.

9 CHAIRMAN BLEY: It is a long answer, I  
10 take it?

11 MEMBER STETKAR: No, I hope it is a quick  
12 answer. I was just curious. You said you received  
13 one comment from a member of the public. What did  
14 that comment pertain to? I am assuming it was not  
15 "as-built."

16 MR. GASLEVIC: Not it was not. The  
17 comment was about surveillance testing for new fuel  
18 designs for advanced light water reactors. It was  
19 probably a confusion between the tests and analyses  
20 and inspections for ITAAC versus the surveillance or  
21 testing for new fuel designs.

22 MEMBER STETKAR: Thanks. Now that you  
23 have reminded me, I remember reading about that one.  
24 I couldn't recall. Thank you.

25 CHAIRMAN BLEY: I have one last question

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1 for Russ. Are there any other areas where NEI thinks  
2 the Reg Guide ought to be changed before it is issued?

3 MR. BELL: We identified a number of I  
4 would say lesser comments in our May 12th letter. We  
5 have not heard the staff's response to those but I am  
6 getting the sense that they found those acceptable  
7 because they haven't said otherwise. I may be  
8 assuming too much. But we did make some other  
9 recommendations. They were a lesser nature than the  
10 question on the as-built definition.

11 CHAIRMAN BLEY: A question for the staff.  
12 As I understand it, on Thursday you are coming back  
13 to our full committee and you would like a letter on  
14 this Reg Guide as it exists and we are looking at it.  
15 That is correct. Right?

16 MR. BELL: Yes.

17 CHAIRMAN BLEY: With no other proposed  
18 changes to it.

19 Well, I am going to go around our table.  
20 I think we have had plenty of discussion. And I am  
21 going to start with Charlie and any key comments  
22 because we are going to have to figure out what we are  
23 doing with this come Thursday and you might want to  
24 adapt your presentations on Thursday to match maybe  
25 some of the concerns you hear coming around the table.

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1           MEMBER BROWN: Thank you. If you want to  
2 stick with the big issues, the DAC involvement in this  
3 thing is really probably the biggest open item, the  
4 design of the equipment that is built like I&C or  
5 those things that fall into the DAC, how do you get  
6 those confirmed, reviewed, design reviewed, whatever  
7 the proper term is, at the time or as they are  
8 delivered by the vendors, once they have completed  
9 their factory tests and tests of that nature. That  
10 shouldn't be held off for two or three or four years.

11         It ought to be, at that time, to ensure that the  
12 fundamental things we approve, not we, but that the  
13 staff proved in the DCD are actually adhered to in a  
14 manner that delivers a safe, reliable performing. And  
15 then the rest of the system tests in the plant can be,  
16 you know, how the wires are put in and bolts are  
17 bolted and all that kind of stuff for a follow-up.

18           But that is, I guess one follow-up on that  
19 is that to me the DAC involves two pieces of closure.

20         One is the design function closure. And the other is  
21 the ITAAC more mundane closure at the time of  
22 installation, where you go in and do the routine  
23 inspections to make sure the bolts are tight and all  
24 that kind of stuff.

25           Maybe that applies to some others but

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1 since I&C is a DAC area, it seems to me there is two  
2 pieces to this that might require --

3 CHAIRMAN BLEY: My memory from the design  
4 certs is that they have both DAC and the regular ITAAC  
5 defined in Tier One.

6 MEMBER BROWN: Yes, I just don't remember  
7 of what they consist and whether they are separated or  
8 whether they are mixed up. Because if you remember  
9 when we looked at one of the sets of ITAAC DAC, it was  
10 very ambiguous and there was very little definition in  
11 it. And that is one of the things that is being  
12 addressed, at least from what I understand.

13 CHAIRMAN BLEY: Anything more? Michael.

14 MEMBER CORRADINI: I just want to see a  
15 statement somewhere that 100 percent of the DACs will  
16 be, I guess the correct terminology is inspected but I  
17 would say reviewed after COL. And some example of  
18 what that might -- I heard words committing to that.  
19 I haven't seen it written down.

20 CHAIRMAN BLEY: Any more? Harold.

21 MEMBER RAY: Well, just adding to what  
22 Mike said. I find it very hard to see why the DACs  
23 shouldn't all be resolved by the time of this 225 day  
24 letter. I understand hypothetically that might not be  
25 the case. But nevertheless, because of the unique

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1 special qualities of the DAC, I would think it would  
2 be highly desirable if that were a requirement. But  
3 that is a comment but I am not inspecting that we can  
4 expect to impose it. But nevertheless, I think it  
5 would be a worthwhile thing to do.

6 CHAIRMAN BLEY: That sort of popped up.  
7 I'm sorry.

8 MEMBER RAY: One other thing.

9 CHAIRMAN BLEY: Are you turned on?

10 MEMBER RAY: I don't need to be on, I  
11 don't think, for this comment. Well, I was going to  
12 say after we are off the record, I wanted to make a  
13 comment unrelated to the Reg Guide.

14 CHAIRMAN BLEY: Okay. We can do that  
15 after we are off the record.

16 MEMBER APOSTOLAKIS: Okay. Yes, I am with  
17 you on the DAC. I am just curious why the  
18 prioritization process that is used for ITAACs is not  
19 used for construction inspections. I don't know if it  
20 is you that should answer that question or somebody  
21 else in the Agency.

22 And I would like to see a more detailed  
23 discussion of this "as-built" business and maybe use a  
24 specific example. Because I hear, you know, that the  
25 staff is going to Japan and doing this and that. Can

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1 you pick, up one example and say this is what we did  
2 in Japan, this is going to be an ITAAC that cannot be  
3 confirmed the normal way? I would like to see that.  
4 Other than that, I am done.

5 MR. CERNE: In response to Professor  
6 Apostolakis, there may be a little confusion about the  
7 prioritization process.

8 CHAIRMAN BLEY: I'm sorry. Can you just --

9 MR. CERNE: I'm sorry. I didn't identify  
10 myself.

11 CHAIRMAN BLEY: Thank you.

12 MR. CERNE: Tony Cerne. I am with the  
13 NRO, DCIP. And the 2503 inspection manual chapter  
14 covers the inspection of ITAAC where we specifically  
15 went through the previous subcommittee, how we  
16 prioritized the inspection of the ITAAC. The 2504 and  
17 essentially that is all of the construction processes  
18 that involve the SSC construction. The 2504 processes  
19 are programs such as QA which touches the value of  
20 effectiveness of the construction. For example, if  
21 you are looking at the effectiveness of special  
22 processes, you are looking at welding and NDE. And  
23 therefore, as you are looking at the QA program, you  
24 are looking at welding and NDE effectiveness, which  
25 touches the SSC, which then touches the ITAAC. But

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1 the 2504 inspection process are not prioritized  
2 because they are programmatic in nature. They are a  
3 QA program. They are a reporting program, 50.55(e),  
4 Part 21, their pre-operational testing program.

5 So there is no prioritization involved  
6 because the prioritization involves the quality of the  
7 SSC and those are all covered by the 2503 process,  
8 which is the ITAAC prioritization process.

9 MEMBER APOSTOLAKIS: But some of the SSCs  
10 are more important than others.

11 MR. CERNE: And that is determined by  
12 which ITAAC we choose to inspect.

13 MEMBER APOSTOLAKIS: I will need to  
14 understand that a little better. I mean, I understand  
15 what you are saying but all I am saying is -- maybe  
16 you are right but I would like to understand it a  
17 little better and see whether there are any  
18 opportunities for risk information to come into the  
19 picture. So, it is too late today. Thank you.

20 MEMBER ABDEL-KHALIK: Like my colleagues,  
21 I am sort of concerned about the DAC process. And  
22 what bothers me also in addition to the comments that  
23 have been made, that the process seems to be kind of  
24 diffuse. Who owns the DACs?

25 And if the staff, headquarters staff does

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1 the evaluation and issues a report and then the  
2 regional offices issues an inspection report that  
3 includes the evaluation that was done by them, it just  
4 seems like the process is not really every well  
5 defined and I would like a better explanation of how  
6 this will work.

7 CHAIRMAN BLEY: Mr. Ryan.

8 MEMBER RYAN: June one comment. I think  
9 it would be very beneficial, and a couple of folks  
10 have mentioned this, to work through some concrete  
11 examples. How would this process work? We have got a  
12 flowchart of a process but there is not a lot of study  
13 or information to study about what are the concrete  
14 products that come out of each phase?

15 I think you know, for lots of folks, it  
16 might be very helpful to try and exemplify --

17 CHAIRMAN BLEY: Are you turned on?

18 MEMBER RYAN: I'm on. Yes, I am on. I  
19 just thought of that as perhaps a path forward to help  
20 better explain.

21 I mean, I appreciate the flowchart. It is  
22 very good. It is well done, but it is not anchored in  
23 concrete examples that we really know how to  
24 communicate how the thing works and what the new parts  
25 and features are. Thank you.

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1                   MEMBER APOSTOLAKIS:   And you can shorten  
2 the presentation.   You will have to shorten it.   For  
3 example, you don't have to tell us what the Regulatory  
4 Guide does.   You don't have to show up Table of  
5 Contents.   I mean, these things go straight into the  
6 actual meat of everything.

7                   CHAIRMAN BLEY:   I forget how much time we  
8 have.   We have an hour and a half on Thursday?   An  
9 hour and a half, including questions.   So yes, you  
10 need a much a tighter presentation.

11                   Well, I would reiterate what my colleagues  
12 have said.   I think you know that by now, we are  
13 really interested in how this DAC thing is going to  
14 work.   And whatever is already prepared, we would sure  
15 like to see.   We have been on pins and needles on this  
16 for a long time.   And the process is there.   It is  
17 sounding like it is coming together but it has got  
18 pieces that we would really like to see in detail.

19                   I would like to thank NEI's staff for  
20 very good presentations and a great discussion.   And  
21 we will see you again on Thursday and thank you.

22                   This meeting is closed.   We are off the record.

23                   (Whereupon, at 5:18 p.m., the foregoing  
24 meeting was adjourned.)

25

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# **NEI 08-01, Industry Guideline for the ITAAC Closure Process Under Part 52**

**Russ Bell  
July 7, 2009**

# Presentation Outline

- **NEI 08-01 Content**
- **Templates for Required ITAAC Notifications**
  - **ITAAC Closure Letters**
  - **225-day Letter**
- **DG-1204 Comments**

# NEI 08-01 Content

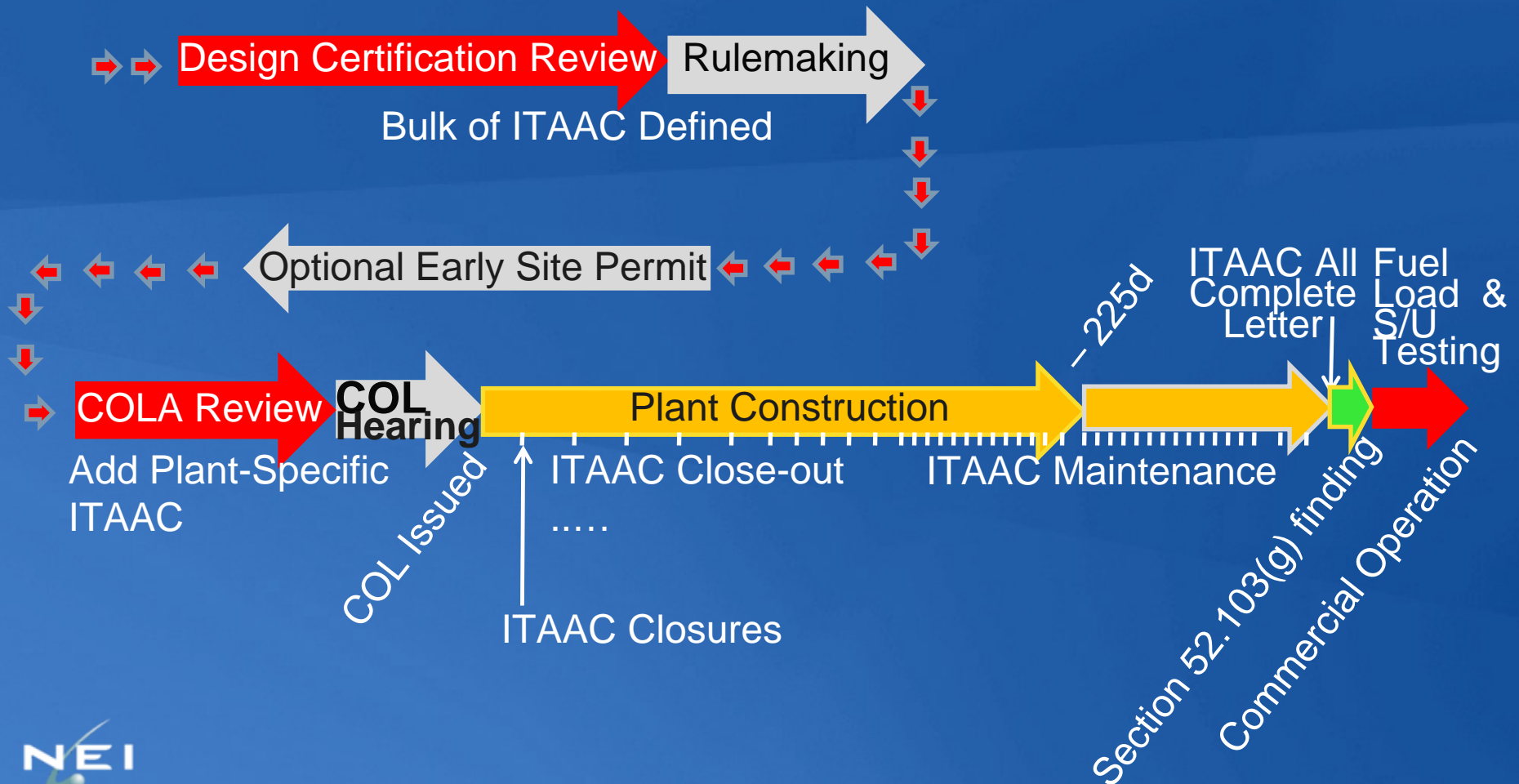
## 1. Introduction

**Purpose: Provides a logical, consistent, and workable framework for ITAAC closure that will maximize the efficiency of this process while ensuring that NRC requirements are fully met.**

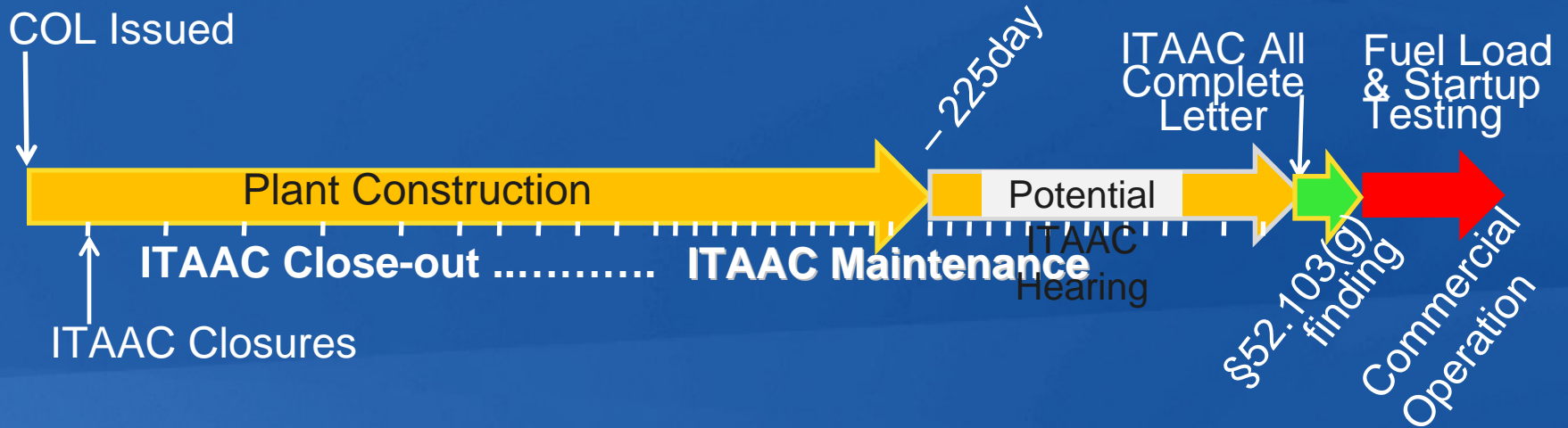
## 2. Definitions

**Key terms are defined such as ITAAC Closure Letter, ITAAC Closure Package, and “As-Built”**

# Life Cycle of a Typical ITAAC



# Post-COL ITAAC Implementation



- Licensee provides ITAAC completion schedule to NRC
  - NRC Inspects ITAAC-Related Activities
  - Licensee Performs ITAAC
    - Licensee Assembles ITAAC Closure Documentation Package
    - Licensee Submits ITAAC Completion Letter
    - NRC ITAAC Verification and Federal Register Notice
    - Licensee Maintains ITAAC Conclusions
      - Opportunity for hearing
      - Licensee submits "All ITAAC Complete" Letter
      - Staff Recommendation to Commission
      - Section 52.103(g) finding

## General Sequence of ITAAC Process

# **3. General Description of 10 CFR 52 and ITAAC Process**

**3.1 Role of ITAAC in Part 52 Process**

**3.2 ITAAC Closure Process**

**3.3 General Description of Public Hearing  
Opportunity**

**3.4 Summary Description of Section 52.103  
Process and Fuel Load Authorization Process**

# **4. Schedule Considerations for ITAAC-Related Activities and Coordination to Support NRC Inspection Planning**

## **4.1 Proprietary Construction Schedule Information**

## **4.2 Licensee Schedule Coordination**

# **5. Licensee Process for Review and Preparation of ITAAC Closure Letters**

**5.1 Guidance for Oversight of ITAAC Closure Activities and Maintenance of Records**

**5.2 Standard Format for ITAAC Closure Packages**

**5.3 Licensee Problem Identification and Resolution Program**



## 6. Guidance on Sufficient Information for ITAAC Closure Letters

- **Closure letters required by 10 CFR 52.99(c)(1) provide basis for conclusion that ITAAC acceptance criteria have been met.**
- **Closure letters should be written for individuals with knowledge, education, or experience concerning technical/engineering concepts underlying nuclear power, including the inspection, tests, and analyses used to demonstrate that acceptance criteria have been met.**

## **7. Guidance on Sufficient Information for 225 Day Notification of Uncompleted ITAAC**

- The licensee is required under 10 CFR 52.99(c)(2) to notify the NRC no later than 225 days prior to scheduled fuel load regarding the status of any uncompleted ITAAC.**

# 8. Special Topics

- 8.1 Maintaining Validity of ITAAC Conclusions**
- 8.2 Design Acceptance Criteria**
- 8.3 Subsequent COL ITAAC Closure**

# NEI 08-01 Appendices

- A. Excerpts from Part 52**
- B. Reserved**
- C. General Description of Common ITAAC Acceptance Criteria Categories**
- D. List of ITAAC Closure Letter Examples**
  - Closure Letter Template and Examples
- E. List of 225 Day Notification Examples**
  - Notification Letter Template and Examples

# 10 CFR 52.99(c)(1)

## ITAAC Closure Letter Template

- **ITAAC Statement**
  - Restate the ITAAC (including design or COL commitment, inspection, test, analysis, and acceptance criteria)
- **ITAAC Determination Basis**
  - Summarize methodology for conducting the inspection, test, and analysis
  - Reference records that form the ITAAC determination basis

# ITAAC Closure Letter Template (cont.)

- **ITAAC-Related Construction Findings**
  - List relevant findings
  - State that they have been closed and required corrective actions have been completed
- **ITAAC Closure Statement**
  - Confirmation that the ITAAC has been closed
- **List of References**
  - Primary references available at site

# 10 CFR 52.99(c)(2)

## 225-Day Notification Template

- **ITAAC Statement**
  - Restate the ITAAC (including design or COL commitment, inspection, test, analysis, and acceptance criteria)
- **Actions Achieved Toward ITAAC Closure**
  - Actions already underway or completed
- **Actions Remaining to Attain ITAAC Closure**
- **List of References**
  - Primary references available at site

# Industry Comments on DG-1204

- Submitted on May 12, 2009
- Key Comments:
  - It is not necessary to specify in the closure letter or 225-day notification when each inspection, test, or analysis was or will be completed.



# Industry Comments on DG-1204 (cont.)

- **Avoid unduly diminishing ITAAC closure guidance and examples by identifying that “additional information may be necessary for individual ITAAC letters.”**
- **Need better understanding of the timing of key NRC actions**
  - **Determinations that ITAAC have been successfully completed**
  - **Determination/recommendation that all ITAAC have been met**

# Industry Comments on DG-1204 (cont.)

## **B.2. Guidelines on ITAAC Closure Development and Documentation in NEI 08-01**

**Third paragraph, middle of page 4.**

**“Section 2 of NEI 08-01 provides a list of definitions for terminology used in the guide. Some of these definitions will reappear in other documents such as operating license applications, design certification applications, and other supporting documents. Therefore, it is important that the full meaning of the definition be preserved.”**

**The last sentence could be interpreted as incorporating explanatory information in Section 3.1.4 into the definition of “as-built.” Section 3.1.4 is not part of the definition but rather provides supporting information for how licensees will need to close some of the ITAACs.**

**While suitable as guidance, the language in Section 3.1.4, e.g., “where ... inspection or test is impractical after installation,” is not appropriate to include in the definition of “as-built.”**

**Therefore, the third sentence should be deleted.**

**In the second sentence, “operating license applications” should be replaced by “combined license applications.”**

**Delete the last sentence of the referenced paragraph so it reads as follows:**

**“Section 2 of NEI 08-01 provides a list of definitions for terminology used in the guide. Some of these definitions will reappear in other documents such as combined license applications, design certification applications, and other supporting documents.”**

**Alternatively, revise the last sentence as follows:**

**“To better convey the meaning of the term ‘as-built’, Section 3.1.4 of NEI 08-01 provides further explanation of the intent of the definition as identified below.”**

# Questions?



**U.S. NRC**

UNITED STATES NUCLEAR REGULATORY COMMISSION

*Protecting People and the Environment*

**REGULATORY GUIDE 1.215  
GUIDANCE FOR ITAAC CLOSURE  
UNDER 10 CFR PART 52**



# Introduction and Overview of Staff Efforts to Develop RG 1.215

Mark Kowal, BC  
NRO/DCIP/CTSB



# Presentation Outline

- Introduction – Mark Kowal
- Overview of Staff Efforts to Develop RG 1.215 –Mark Kowal
- Regulatory Basis and ITAAC Overview – Rich Laura
- Discussion on NEI 08-01 – Russ Bell
- Overview and Public Comments on RG 1.215 - Jim Gaslevic



# Staff Efforts to Develop RG 1.215

- Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)
- ITAAC Closure Working Group
  - Multi-disciplinary approach, since ITAAC affect all divisions of NRO
  - Included members from each NRO Division, OGC, RII, and NSIR
  - Extensive interactions with all stakeholders mid-2007
- Revision 3 of NEI 08-01 reflects numerous public meetings to resolve issues and find realistic answers to complex problems
- Public workshops continue on a bi-monthly schedule to identify and resolve implementation issues



# Future Staff Plans

- Transmit RG 1.215 and NEI 08-01 to the Commission in August 2009
- Refinement of Section 8.1 of NEI 08-01, ITAAC Maintenance
- Commission paper on ITAAC maintenance developments due late August 2009
- Future update and revision of RG 1.215 and NEI 08-01 expected





# Regulatory Basis and ITAAC Overview

Richard Laura, Team Lead  
Construction ITAAC Team (CIT)  
NRO/DCIP/CTSB



# Discussion Outline

- Purpose of RG 1.215
- ITAAC
- Requirements of Part 52.99
- Development of Industry Guidance
- ITAAC Closure Process Timeline and Flowchart
- ITAAC Closure Letter and 225-Day Notification Templates



# Purpose of RG 1.215

- Promotes a standardized approach to ITAAC closure
- RG 1.215 endorses guidance described in NEI 08-01, “Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52,” Revision 3, issued January 2009
- NEI 08-01 was primarily developed for the implementation of 10 CFR 52.99 “Inspection During Construction”
- RG 1.215 follows the NEI 08-01 outline
- Staff to provide NEI 08-01 to the Commission before reaching a decision to endorse



# ITAAC FORMULA

- $ITA + AC = ITAAC$

ITA = Inspections, Tests, and Analyses

Methodology used to compare the SSC condition to one or more design commitments

AC = Acceptance Criteria

Performance, physical condition, or analysis result for an SSC that demonstrates the design commitment is met

- Design Commitment

Portion of the design description that is verified by ITAAC

- RII responsible for ITAAC related inspections
- HQ responsible for ITAAC closure verification



# ITAAC

- Provide reasonable assurance that the facility has been constructed and will be operated in conformity with the design certification or license application, the provisions of the Atomic Energy Act, and the Commission's rules and regulations

<b>Design Commitment</b>	<b>Inspection Test Analysis</b>	<b>Acceptance Criteria</b>
The RCPs have a rotating inertia to provide RCS flow coastdown on loss of power to the pumps.	Inspection of the as-built RCP vendor data will be performed.	The calculated rotating inertia of 16,500 lb-ft <sup>2</sup> .



# Requirements of 10 CFR 52.99

## Inspection during construction:

- § 52.99(c)(1) The licensee shall notify the NRC that the prescribed inspections, tests, and analyses have been performed and that the prescribed acceptance criteria have been met. The notification must contain **sufficient information** to demonstrate that the prescribed inspections, tests, and analyses have been performed and that the prescribed **acceptance criteria have been met.**
- Referred to as ITAAC closure letters



# Requirements of 10 CFR 52.99

Inspection during construction:

- § 52.99(c)(2)..... The notification must be provided no later than the date 225 days before the scheduled date for initial loading of fuel, and must provide **sufficient information** to demonstrate that the prescribed inspections, tests, or analyses will be performed and the prescribed **acceptance criteria for the uncompleted ITAAC will be met**, including, but not limited to, a description of the specific procedures and analytical methods to be used for performing the prescribed inspections, tests, and analyses and determining that the prescribed **acceptance criteria have been met**.
- Referred to as 225-day notifications, or “uncomplete” ITAAC notifications



## Key Points of 52.99 Statements of Consideration

- The term “**sufficient information**” requires, at a minimum, a summary of the description of the bases for the licensee’s conclusion that the inspections, tests, or analyses have been performed and that the prescribed acceptance criteria have been met





## Key Points of 52.99 Statements of Consideration (cont'd)

- It is the licensee's obligation to demonstrate compliance with ITAAC
- The NRC expects the notification to be sufficiently complete and detailed for a **reasonable person** to understand the licensee's bases for the ITAAC closure notification



## Key Points of 52.99 Statements of Consideration (cont'd)

- For notifications on ITAAC that “will be met” [52.99(c)(2)], “**sufficient information**” includes, but is not limited to, a description of the specific procedures and analytical methods to be used for performing the inspections, tests, and analyses and determining that the acceptance criteria have been met



## Key Points of 52.99 Comment Summary Report

- Information disclosure requirements of 52.99(c) based on:
  - Need to provide information to support a timely NRC staff recommendation and Commission finding on an ITAAC
  - Need to provide access to sufficient information to potential interveners at the ITAAC hearing stage

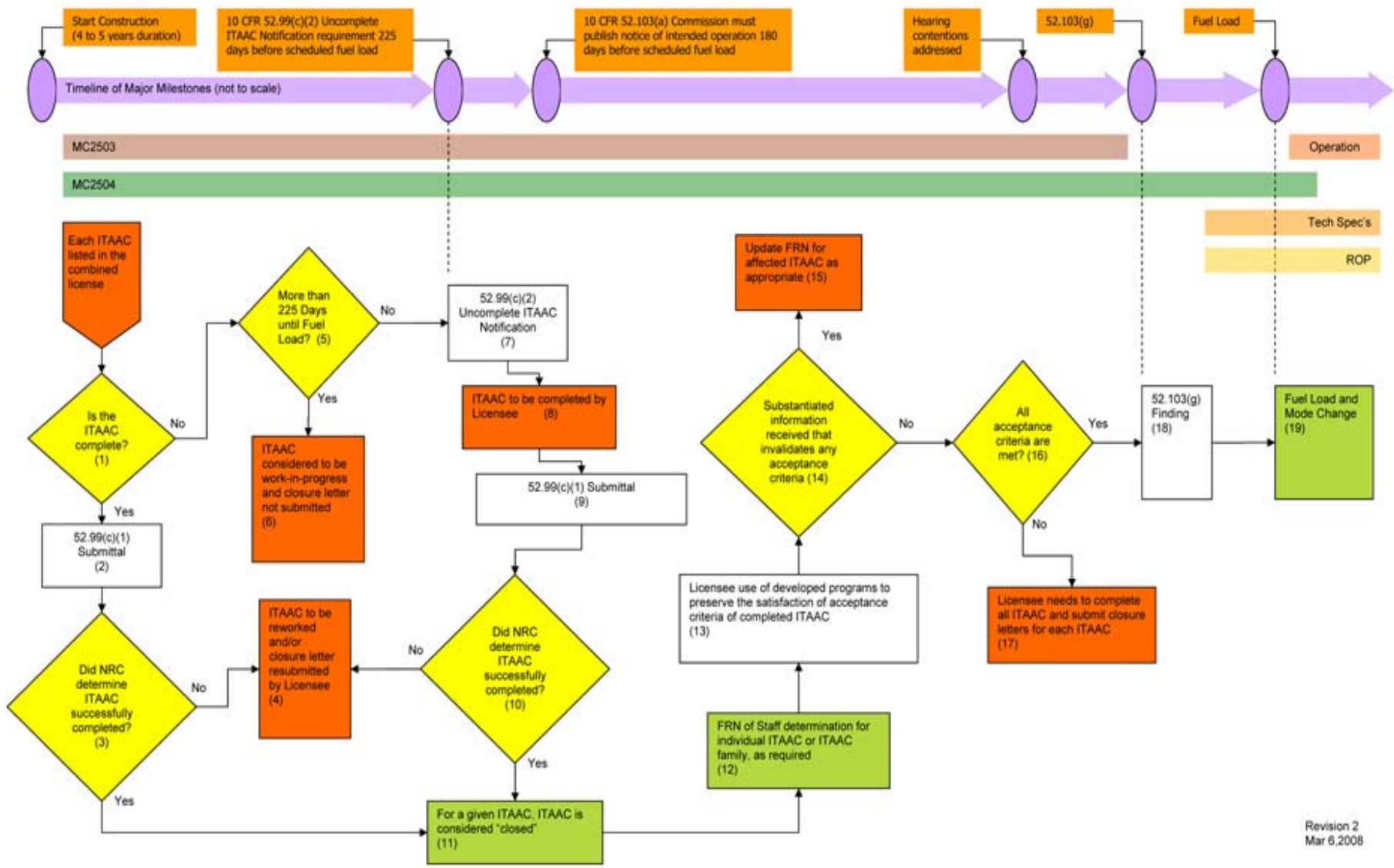


# Guidance Development

- Numerous public meetings and interactions between NRC, industry, and public since August 2007
- Successful, iterative process for building templates for completed ITAAC closure letters and uncomplete ITAAC notifications
- Concepts from 10 CFR Part 52 and its Statement of Considerations are reflected in guidance
  - “Sufficient information”
  - “Reasonable person”
- Minimal comments received during 60-day public comment period for DG-1204 (RG 1.215)



# 52.99 and 52.103(g) Process Flowchart and Timeline





# Closure Letter Template

## **ITAAC Statement**

Lists the Design Commitment, Inspection/Test/Analysis, and Acceptance Criteria

## **ITAAC Determination Basis**

Summarizes the methodology for conducting the ITA, and the results that demonstrate that the acceptance criteria were met

## **ITAAC-Related Construction Finding Review**

Lists relevant ITAAC-related construction findings and states that all corrective actions have been completed, or provides a justification for why the ITAAC can be closed despite unresolved findings

## **ITAAC Closure Statement**

Statement that the ITAAC was performed and that the prescribed acceptance criteria were met

## **References**



# 225-Day Notification Template

## **ITAAC Statement**

Lists the Design Commitment, Inspection/Test/Analysis, and Acceptance Criteria

## **Actions Achieved Toward ITAAC Closure**

Provides status of activities related to ITAAC closure

## **Actions Remaining to Attain ITAAC Closure**

Provides a high level discussion of the remaining activities, and summarizes the methodology for conducting the ITA

## **ITAAC Closure Schedule**

Provides forward looking statements for confidence that these actions will be achieved

## **References**



# Key Points

- Substantial progress has been made in developing guidance for implementing Part 52
- Guiding principle was to stay close to Part 52
- Staff and stakeholders worked extensively together
- Key terminology and concepts such as “sufficient information and “reasonable person” are now reflected in the guidance and templates
- Consensus was achieved in the 26 templates that form the basis for ITAAC closure
- Successfully illustrated the connection between 52.99 and 52.103(g)





# Discussion on NEI 08-01

Russ Bell, Director  
New Plant Licensing  
NEI



# Overview and Public Comments on RG 1.215

James Gaslevic, P.E.  
Construction ITAAC Team (CIT)  
NRO/DCIP/CTSB



## RG 1.215

- Used as a vehicle to endorse NEI 08-01
- Outline and Discussion format of RG 1.215 follows table of content of NEI 08-01
- Includes the 52.99 and 52.103(g) flowchart and timeline discussed earlier as an appendix



# RG 1.215 Outline

- A - Introduction
- B - Discussion
  - Background
  - Development of Industry Guideline Document NEI 08-01
  - Guidelines on ITAAC Closure Development and Documentation in NEI 08-01
  - Appendices to RG 1.215
    - Appendix A - Text of 10 CFR 52.99
    - Appendix B - Flowchart and Description of Implementation Under 10 CFR 52.99 and 10 CFR 52.103(g)
- C - Regulatory Position
- D - Implementation
- References



# Public Comments on DG1204

- 60-day public comment period ended May 13, 2009
- Comments received from 2 stakeholders
- NEI comments comprised majority, but were mostly editorial in nature
- Comment requiring significant effort involves the definition of “as-built”



# Definition of “As-Built”

- Definition is important because the term “as-built” appears in many ITAAC
- Inspections, tests, and analyses of ITAAC SSCs should ordinarily be performed in the final, in-place location
- It may be impractical to perform some inspections and testing after installation in the plant
- In those cases, it may be appropriate to perform inspections or tests prior to final installation



# Current Definitions

- Currently certified designs have the following definition for “as-built”:
  - As-built means the physical properties of the structure, system, or component following the completion of its installation or construction activities at its final location at the plant site.
- COL licensees referencing already-certified designs are bound by the definitions in the design certification rather than the definitions in NEI 08-01



# NEI-08-01 Definitions

- NEI 08-01 modifies “as-built” as follows:
  - As-built means the physical properties of a structure, system, or component following the completion of its installation or construction activities at its final location at the plant site.  
Determination of physical properties of the as-built structure, system, or component may be based on measurements, inspections, or tests that occur prior to installation, provided that subsequent fabrication, handling, installation, and testing do not alter the properties.





## RG 1.215 Guidance

- NRC staff believes that the NEI 08-01 definition of “as-built” could form part of the basis for a DCD definition of “as-built” in future design certifications and design certification amendments
- Any such DCD definition, however, should also include the additional discussion in NEI 08-01, Section 3.1.4



# RG 1.215 Guidance

- NEI 08-01 Section 3.1.4:

“Many ITAAC require verification of ‘as-built’ SSCs. However, some of these ITAAC will involve measurements and/or testing that can only be conducted at the vendor site due to the configuration of equipment or modules or the nature of the test (e.g., measurements of reactor vessel internals). For these specific items where access to the component for inspection or test is impractical after installation in the plant, the ITAAC closure documentation (e.g., test or inspection record) will be generated at the vendor site and provided to the licensee.”



# Key Points

- Through endorsing industry guidance, the RG sets a milestone on Part 52 process agreement between staff and external stakeholders
- Draft RG received minimal comments from public comments period
- Comments received were mostly editorial in nature