Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: Office of Nuclear Material Safety Safeguards
Part 70, SRP Chapter 3, ISA

Docket Number: (not applicable)

Location: Rockville, Maryland

Date: Tuesday, May 8, 2001

Work Order No.: NRC-187 Pages 1-185

NEAL R. GROSS AND CO., INC.
Court Reporters and Transcribers
1323 Rhode Island Avenue, N.W.
Washington, D.C. 20005
(202) 234-4433

NMSS22
Add: Pam Shea

NUCLEAR REGULATORY COMMISSION

+ + + + +

OFFICE OF NUCLEAR MATERIAL SAFETY SAFEGUARDS

+ + + + +

DIVISION OF FUEL CYCLE SAFETY AND SAFEGUARDS

PART 70, SRP CHAPTER 3, ISA

+ + + + +

PUBLIC MEETING

+ + + + +

MONDAY

MAY 8, 2001

+ + + + +

ROCKVILLE, MARYLAND

+ + + + +

The meeting came to order at 1:00 p.m. in the 10th Floor of Rockledge 2, Yawar Faraz, presiding.

PRESENT:

Yawar Faraz, NRC

Dennis Damon, NRC

Lawrence Kokajko, NRC

Mel Leach, NRC

Bob Pierson, NRC

Lidia Roche, NRC

Clinton Farrell, NEI

Felix M. Killar, Jr., NEI

PRESENT: (CONT.)

Steve Schithel, BWXT

Calvin Manning, FRA-ANP

Larry Tupper, FRA-ANP

Rik Droke, Nuclear Fuel Services, Inc.

Sam McDonald, Westinghouse

A-G-E-N-D-A

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

(1:03 p.m.)

MR. FARAZ: Good afternoon. This is a public meeting on Chapter 3 of the ISA Standard Review Plan. My name is Yawar Faraz. I'm the NRC's Senior Project Manager for Subpart H of Part 70. I assumed this responsibility after Tom Cox retired in early March.

Since some of you are seeing me for the first time, I would like to just give you a brief background of me. Before I assumed my current position, I was the project manager for the Portsmith Gaseous Diffusion Plant for four years.

Before that I was project manager for Louisiana Energy Services Application for a gas centrifuge facility. That was for three years.

As part of certifying the two gaseous diffusion plants I led the reviews in the areas of accent analysis including identification of items relied on for safety, technical safety requirements which are similar to reactive tech. specs., and also radiation protection. I have a degree in nuclear engineering and I'm also a CHP.

We have prepared about 30 blue folders there at the entrance. The folders include the agenda

for today's meeting, a clean copy and a redline and strikeout of Chapter 3 that we put on the web on March 30th. A copy of any comments that were e-mailed to us on May 1st. Subpart H of Part 70. Also NRC public meeting feedback form.

If you could, please fill out the form and provide it to us at the end of the meeting. Or, if you can, mail it to us within seven days. This is one way that we can judge how well we are communicating with our stakeholders so it is fairly important.

There is also a sign-up sheet going around. I think it's at the entrance. If you didn't sign your name, please do so.

Is there anyone from the press present today? I guess not.

At this point, I would like to begin our introductions. I'm Yawar Faraz. I'm the NRC/ISA Project Manager.

MR. PIERSON: I'm Bob Pierson. I'm Deputy Director of the Division of Fuel Cycle Safety and Safeguards.

MR. LEACH: Mel Leach. I currently work in Region III office in Chicago but I'm transitioning in to be the Chief of the Fuel Cycle Licensing Branch.

MR. KILLAR: I'm Felix Killar, Director of

Material Licensees at the Nuclear Energy Institute.

MR. SCHITHEL: I'm Steve Schithel with BWXT Technologies.

MR. MANNING: I'm Calvin Manning with Framatone-ANP in Richland.

MR. FARRELL: I'm Clinton Farrell with NEI.

MR. TUPPER: Larry Tupper with Framatone in Lynchburg.

MR. DROKE: Rik Droke with Nuclear Fuel Services.

MR. McDONALD: Sam McDonald, Westinghouse Plant.

MS. ROCHE: I'm Lidia Roche, Section Chief, Fuel Cycle Licensing.

MR. KOKAJKO: Lawrence Kokajko, Section Chief, Risk Task Group.

MR. DAMON: I'm Dennis Damon. I'm also in Lawrence's Risk Task Group.

MR. FLACK: Ned Flack, Project Manager for BWXT Licensing Project.

(Whereupon, introductions were made off the record.)

MR. FARAZ: Would anyone else like to make any introductory remarks for today's meeting?

MR. KILLAR: I guess we could just make a few remarks. I think overall we are still concerned with the content of Chapter 3. We still see a number of issues and problems with it. You have our written comments and I assume we'll have time to discuss them later today.

I think probably the bottom line that bothers us the most is that we are now in a process of trying to implement this new Part 70, this new rulemaking. We are going through and submitting licenses and changes to our existing licenses.

We still don't have firm guidance for this area and it is impacting us. It's beginning to impact getting through the process and we are very concerned that this is occurring. We would like to see what we can do to get this thing resolved correctly and as expediently as possible.

Correctly is the most important thing but expediency is also very important to us. As we have all submitted our April submittals for doing the ISAs we need to know how these things are going to be evaluated so we are comfortable what we submit will not be sent back to us. I don't know if anyone else wants to add anything along those lines.

MR. FARAZ: Bob, would you like to make

any comments?

MR. PIERSON: I can say a few short things. We do have your comments and we thank you for taking the time and effort to do that. We were a little bit taken aback by the extent of the comments and we felt that the comments were probably -- I was surprised by the comments because I assumed we were further along in terms of what we had hoped to be consistency from the results of our last meeting.

I think that as a consequence of that we probably need to focus somewhat on definitions in the rules. I would propose that at least in the beginning before we start working through this paper and these comments and trying to figure out what we've written here and decide what is acceptable that we go back to Part 70.

I would ask you to maybe look at certain parts of Part 70 so we can go through the contents of the application so we can understand what you think the words mean, we'll tell you what we think the words mean, and then we can get a common consensus on what the omissions of Part 70 are. Then I think we can go back and start revising the standard we planned.

Maybe it's a case where some look at the glass half full and some look at the glass half empty

but I see right now that I'm concerned that we're not really talking to the same point. That is reflected in the comments that you are putting out.

I think that we have to, as somebody said, go back to proven principles to find where we need to be coming from and then we can start going in and editing the paper and talking about that. That's the only comment that I would have.

MR. SCHITHEL: Excuse me. I'm trying to figure out why we're so far apart as well. I think we have two different views of this document. In industry we review it more as a standard format and content guide which we made a decision a little earlier that we wouldn't develop a standard format and content guide.

I think your view of it is more a standard review plan. I think that might be causing some of the disconnect because if we look at this document as a standard format and content guide, we feel like it directs us into a level of information that is way beyond what we ever anticipated as we were working on the rule.

As we talk about those first principles, we need to make a distinction between content and review as to what the NRC reviewer needs to be

reviewing.

MR. PIERSON: I think that's a good point. We need to look at what is done by the licensee, what is submitted by the licensee, what is reviewed by the NRC. I think that is critical in terms of the definitions that we have in Part 70 and what we mean by each, every, all, and always.

There seems to be a constant reiteration and going back in terms of what those mean. When you say you are going to send a summary in or you are going to send an example of what that means. That would be my only advice. It would take 30 or 40 minutes at the beginning and at least define that and then I think we can have a chance in making progress later on.

MR. FARAZ: The comments that we received from NEI, I just wanted to let you know that it is being docketed and it will be available for the public. It will be in ADAMS. We will be providing responses to those comments, written responses at a later date.

Five days wasn't sufficient time for us -- five or six days wasn't sufficient time for us to go over the comments and digest them and really understand them but we are in the process of doing

that. We will let you know when we will have those responses ready.

Looking at NEI comments, it is clear that the overriding issue is the level of detail needed in ISA Summary. I think NEI would agree with that and that is what they reflected in their comments to us.

As Bob mentioned, a good strategy for today's meeting would be at a very high level to go over the regulatory requirements that address the level of detail needed in the ISA Summary. We can do that by looking at the rule itself.

In particular, 70.65 which is in the blue folders. I would like to direct your attention to page 56229 which addresses that part of the rule. I think if you can go through each individual requirement within that part of the rule, we should be able to make progress as this meeting goes along.

First of all, before we begin, I would like to direct your attention to 70.65(b)(4). I think that is a very, very -- that is something that we rely on a lot in determining what you provide us in the ISA Summary.

If you read it, is says, "Information that demonstrates -- this is within the ISA Summary -- the licensee shall provide us information that

demonstrates the licensee's compliance with the performance requirements of 70.61."

This is something that we feel is extremely important in terms of what is provided in 70.65. Then I think we can just go down each requirement of 70.65 and I would like to ask NEI and the industry to provide its perspective of what it feels each requirement in this portion of the rule requires.

If you go to 70.65. I think we can skip (a), 70.65(a), because that is very straightforward. The ISA Summary is within 70.65(b). If you go to 70.65(b)(1) it talks about, "A general description of the site with emphasis on those factors that could affect safety (i.e., meteorology, seismology);"

So if NEI can provide its perspective to us as to what its understanding is in the industry of what that requirement means and what the licensees would have to include in the ISA Summary following that particular requirement.

MR. PIERSON: Is that acceptable to all to do that? I think, to some extent, what's happening to us is, and I'm not sure particularly on this one, but in some cases I don't think we are coming to a consensus about what this means.

We have a description in our proposal that we submitted to you for comments and you provided comments. I don't even know how much the comments address this particular one but I would just like to have something from the perspective of whether or not we think it's X or we think it's Y and just let us get it out on the table now.

If we can't agree on it, then at least we will know why we can't agree and we can focus on that rather than keep trying to write something that seems to be reaching an impasse.

MR. KILLAR: I guess we could certainly do that. We are going to be giving you off-the-cuff answers because we haven't really prepared to address these line by line and discuss them.

MR. PIERSON: I understand that.

MR. KILLAR: We can talk about what we think or think it can be bought as we discuss it.

MR. PIERSON: Okay. What do you think of the site description?

MR. KILLAR: I guess to answer the first one as far as it relates to the ISA, we felt a lot of this material we've already been providing in the general description of the facility. I can't remember if it's Chapter 1.

MR. PIERSON: Chapter 1.

MR. KILLAR: The only thing that we do as relates to the ISA is if there is anything that we are specifically taking credit for, or what have you, above and beyond the general description that's already in Chapter 1 that we would include then in the ISA.

I guess the question goes back to you. Do you envision that you are going to need more information than what is currently being provided in Chapter 1 and the affects beyond the seismology and things along that line.

MR. FARAZ: So will you be providing that information in the ISA Summary or would you be referencing it?

MR. KILLAR: We would reference Chapter 1 unless we felt that we need something in addition to what is already in Chapter 1 which in case we say in addition to what is in Chapter 1, we want you to know these additional situations, conditions, or whatever.

MR. FARAZ: I think that should be sufficient.

MR. DAMON: It depends. I'm not really that familiar with every single license's first part. What I think was intended here was that you would have

information that might not already be current. That's what the reason for including this is.

There might be some other information you were using in your ISA analysis about the site and that would be a place to put that. An example of that is the frequency of hurricanes at your site or whatever.

MR. PIERSON: I'll tell you how I would look at this, the general description of the site. Usually in Chapter 1 you don't contain specific numbers for things like seismic acceleration. It's more of a general thing.

Now, if you're taking credit for some kind of seismic acceleration or some sort of frequency interval for a storm or an elevated flood level or something specific like that that impacts your ISA, you would need to include that in that general description. We're not looking for going back to relocate in South Brunswick County, Georgia, dah, dah, dah, dah, dah. That's not what we're looking for there.

But there are things included in Chapter 1 that one could conceivably use as a general description that would need to be in your ISA general description if you were taking credit for that, as an

example, for not taking some action because of the infrequency of a certain type of event like flooding or something like that.

MR. TUPPER: So if it was in Chapter 1, you would not need to repeat it in your ISA Summary?

MR. PIERSON: I don't think so.

MR. TUPPER: You could reference it back to that.

MR. PIERSON: Absolutely.

MR. TUPPER: As long as you write your Chapter 1 adequately to cover the various different items you take credit for in Chapter 3, you could do an entire reference to Chapter 1?

MR. PIERSON: That's right. That's fine with us.

MR. McDONALD: Similarly, if you don't take credit for something, there is no reason to include it is what I think I hear you saying.

MR. PIERSON: Right. I don't expect, for example -- let me give you an example. Suppose you have a roof over your facility and you are taking credit for moderator exclusion in an area and you're located in, say, South Carolina.

I would think that you would need to address, say, snow loading of the roof as an example.

Whereas if you were located in Vermont, maybe that would be a factor in terms of assuring whether you had moderator control all the time.

MR. McDONALD: But you wouldn't want to know things like hurricane frequency.

MR. PIERSON: Sure. Right.

MR. SCHITHEL: I think we are prepared to acknowledge the work we have done. There is a little bit more that is currently in Chapter 1 that would need to go in here, specifically some of the seismology, weather type characteristics.

MR. PIERSON: Right.

MR. SCHITHEL: But it's not a lot more information.

MR. PIERSON: It's not a lot. It's not a rehash or regurgitation of Chapter 1. You are welcome to do that, if you wish, but that's not what we're asking.

MR. FARAZ: Move on to item 2.

MR. SCHITHEL: I'm just wondering. At some point we need --

MR. PIERSON: Do you want to go back and look at Section 1 and say if we're happy or not? Do you want to do that?

MR. SCHITHEL: Probably not. That would

probably sidetrack us.

MR. PIERSON: It would be easier to walk through these things and then walk back to them and then we'll probably see where we missed our consensus that we thought we had. Or we can go one at a time, whichever you prefer. What would you rather do?

MR. SCHITHEL: Do it the way you started, Bob.

MS. ROCHE: Do we have consensus here?

MR. McDONALD: I think we have understanding. I guess a comment I would make is that my observation of the process is that as you get into the details, that's where we tend to diverge. I'm not sure that we'll get into all that level of detail here but I think, at least, this helps us understand what the intent is.

MR. PIERSON: We're taking you a little bit off track from how we scheduled this meeting. I'm not asking you to commit in terms of fixed definition for each of these. I just want to understand what your perspective is so we can come to some consensus.

MR. McDONALD: So at least we'll understand the intent.

MR. PIERSON: Then we can go back to the specifics in the document.

MR. FARAZ: Moving on to No. 2. I'll just read it for the court reporter. "A general description of the facility with emphasis on those areas that could affect safety, including an identification of the controlled area boundaries;"

NEI, would you like to share a perspective on this?

MR. KILLAR: I don't know that we identified any issues with that. We've been providing our facility layouts, our equipment layouts, and things on that line.

If we've had things that were outside of the area that could affect safety such as a hydrant cylinder or ammonia tank, we have identified those. I don't know that we have a problem with the interpretation of this.

Are there things that you felt that we haven't identified or what have you in this area that we haven't included?

MR. FARAZ: There's just one thing I would like to point out is this portion of the rule talks about the control area which there is also a restricted area. I just wanted to clarify that.

You have a restricted area and then you have a controlled area. Just keep that in mind. We

would also need to see where the restricted area is to understand.

MR. PIERSON: That becomes important because if a facility is located on, say, DE reservation because in terms of what we take for some of our environmental and off-site release functions, what is the control area and what is the restricted area.

MR. SCHITHEL: It is also important in relation as to whether the performance criteria is 5,000 DAC hours at a restricted area.

MR. PIERSON: That's right.

MR. SCHITHEL: That is particularly problematic.

MR. PIERSON: That's a very subtle point.

MR. FARAZ: Item No. 3, "A description of each process (defined as a single reasonably simple integrated unit operation within an overall production line) analyzed in the integrated safety analysis in sufficient detail to understand the theory of operation; and, for each process, the hazards that were identified in the integrated safety analysis pursuant to 70.62(c)(1)(i)-(iii) and a general description of the types of accident sequences;"

MR. KILLAR: In this one here I think

we've found where we have the -- I don't think we have a disagreement but I think we have applications in that you may take one facility and they may consider their whole process line as a simple integrated process where another facility may take individual steps in that process line as a simple process. I think it is facility dependent or facility specific of how they describe it.

It is also, I think, a question of the complexity of the operation. If they have a line that relies primarily on geometric controls and things on that line and there is minimal human intervention or what have you, they may feel comfortable describing that whole line or whole process as one area.

Where another facility may have a similar operation but they have a lot of human interaction and human intervention in which case they may break it up into three or four or maybe more descriptions. I think, again, it's facility dependent.

I think we discussed, and I thought we had an understanding, that we could break it up and do it through these different methods.

MR. SCHITHEL: I can offer a little more of a historical perspective. This particular number was the topic of a pretty detailed discussion that we

had in one of our meetings on the rule. This used to say, "A description of each accident sequence."

We went through in great detail. It took us about a half a day to discuss that very point. If you look, it refers back to 70.62(c)(1)(i)-(iii). There's a reason that iv is not included in that.

If you go back to 70.62, it says you identify potential accident sequences in iv. 70.62(1)(iv) says you'll identify potential accident sequences. When we came to the ISA Summary, we said we don't want all accident sequences.

We want a general description of the types of accident sequences. The ISA is to identify all accident sequences. The ISA Summary is to include a general description of the types of accident sequences.

I think the problem is we're having a hard time reconciling this with your original statement about No. 4 because we appear to be -- you appear to be concluding that in order to accomplish No. 4 you need all accident sequences. That's our view of what the standard review plan says today.

MR. PIERSON: That's a good summary. So what do we want to say?

MR. FARAZ: I think in the comments that

we received from NEI, NEI took exception to all accident sequences be referred in Chapter 3. At this point I think it is fair to say that NEI has a valid point.

I would tend to think that the accidents that have no consequences, that are not intermediate or high consequences we can remove from the ISA Summary. It is the accidents that have intermediate and high consequences that is something we feel needs to be included in the ISA Summary.

Now, Steve, your point about general description, I think that applies to the intermediate and the high consequence. Am I correct?

MR. SCHITHEL: Yes.

MR. FARAZ: You are right. In looking at 4 it would be very difficult for the reviewer to make a safety determination if the accident sequences aren't really provided in pure manner to the reviewer.

You haven't really said what is your understanding of general description means but, for instance, if you do not provide the accident sequences, you know, just provide a very vague description of such and such can occur, it's very difficult for the reviewer, first of all, to make a linkage between the controls and the accident

sequence. To do that, it's very difficult for the reviewer to determine that the accident sequence is adequately controlled.

MR. SCHITHEL: I think that is probably the route of our problem. Our expectation of the licensing process is that the ISA Summary for a very simple process can probably describe the accidents that can happen. From complex process we can describe in general the types of accidents that can happen.

Based on our programs and our commitments to do it and our processes for executing an ISA and some level of vertical slicing, if you will, where the NRC would accept that our programs are adequate and do some level of vertical slicing through those complex processes, you will not be able -- I will not be able to write an ISA Summary that is big enough ever to let you sit in Washington and decide that my recovery process is safe.

You are going to have to come to Lynchburg and get into the underpinning of the ISA which is the criticality safety analyses, the red safety analyses, and understand that the underpinning is there on a sampling basis in order to conclude that the facility is safe to operate.

You can't possibly become responsible for

safety and draw a conclusion that every process and every aspect of our facility is safe. We are responsible for safety. I think that is the root of our issue and our problem.

MR. DAMON: I think there is another way of looking at it and the question is why send us anything in respect to that one item, general description of types of accident sequences.

For example, if a licensee sent in and for every process that had SNM in it, you would say you could have a criticality in here. For every process that has hazardous toxic chemicals, that you could have a release of the toxic chemical.

That kind of information there would really be no point in going through and writing that for every process in the plant hundreds of times because there's no information content. We all sitting here around this table already know that's true.

That's the dilemma, I think, is that the other extreme you can put in all kinds of everything you found and you say, "That's too much." If you remember what the purpose of this information is, I think those who are tasked with writing this stuff, if they keep this following focus.

That is what I see as being a useful thing that could be accomplished with this, that you are trying to convey to the reviewer that, yes, you have thought about the different kind of accidents that can happen in this process and here are the ones that we found.

You synopsize it at some level that is tractable but conveys to the reviewer you really did something. You didn't just -- this is not just a proforma, there are criticalities and releases of toxic chemicals and he says, "Oh, I knew that. This is nothing for me." The idea is to convey it to them.

I think it's good you mentioned the difference between simple process and complex. I think there are a lot more simple processes. This is one thing I learned from looking at the actual summaries that got sent in. There is a lot more simple ones than there are complex ones.

That's going to be another virtue if these little descriptions is done well is that the reviewer will actually be able to essentially process through a large number of simple processes and say, "Oh, yeah. I understand this and I understand that."

That is where I found myself. Once I understood one of these and that the basis is going to

be similar to these others, you just go through them. There is a value to it. I agree with you when you come to a complex one, it's not going to be so easy.

That's what myself when I originally wrote it and other people had in mind was these complex ones and why we got into this dilemma because when you got to the complex ones, we said how the heck could we ever review this except for them to tell us all the sequences.

I think the objective is not for you to tell us all the sequences. It's to convince us that you have done it. You have done something which identified them all.

MR. SCHITHEL: Do we have to tell you all of them?

MR. DAMON: That's what I'm saying.

MR. PIERSON: I think maybe that's the way to explain the process that they use.

MR. DAMON: Well, that's one thing. If you tell somebody, you know, this is a complex one, we used this method on this one, we found various ways you could get whatever, a criticality, and describe the ones you think are most significant.

If it's a complex one, describe the ones you think are more significant. Maybe you because you

think they are more and more difficult to control or they need some explanation, you know. Anyway, the idea, I think, of an objective is to convince the reviewer that, yes, you've done something. You've tried to identify all the accident sequences.

Since the words don't say to list them all here, we can't ask you to list them all. I'm just saying that the usefulness of sending something would be to try to do that to the extent it's feasible without getting too lengthy.

MR. PIERSON: But still they need guidance in terms of where do we draw the line. Obviously in these cases the devil is in the details but we can't sort of just give somebody guidance that says there's a point we're not sure where to provide it. That's not going to work. We need to be more specific.

MR. DAMON: Well, what I'm trying to say is I don't think this is the item where the reviewer comes down and says, "Oh, you didn't comply. You didn't send me the blah, blah, blah, the general description."

What he's really after is some information being conveyed to him about whether you have actually done an ISA and used a method and identified accident sequences. Other than just an affidavit basically

saying, "Yeah, we did an ISA." It's really trying to convey the content to some degree. Since we didn't want to say all of them in detail, then it doesn't have to be all of them in detail.

MR. McDONALD: I guess I would like to maybe put a specific example on the table that we at Westinghouse are obviously actively working on with you. That is, our ERBIA Expansion System Amendment.

In that case, we provided fault trees in our first cut which I think if you put together a fault tree would demonstrate that you have methodically thought out in a structured way what your hazards and risks and mitigation factors are, etc.

As an example, and I don't mean this critically, but to try to build on it the feedback we had was, "We don't understand the fault tree." So then it became a matter of a level of detail so we added a middle that basically took the fault tree provided, you know, from our reviewer's standpoint or our engineer's standpoint no added safety analysis value but he reformatted the information on the fault tree in a paragraph format.

Again, it comes back to Bob's point that it seems to be in the actual process. I don't disagree with your point, Dennis, that providing a

structured approach so that you can judge, yes, we've gone through the process. Even with that, I think we are going to a level of detail. We seem to be caught in a debate on what's the right level of detail at which you stop. I think Bob did that pretty well.

Based on what I've seen in the past six weeks or so, I don't know how we get a clear definition of that level of detail right now. Certainly it has us concerned.

MR. DAMON: I mean, I can't make promises for Fuel Cycle Division. I'm not part of the division but my feeling is that a fault tree in general is sufficient to satisfy this and does provide a tremendous amount of information.

I think the thing was that in the particular thing you were citing, it was an amendment so it was that one process. They were doing what was being referred to before as a vertical slice. They wanted to look at all the details. They really wanted to understand that one process.

That's when I think they got into the problem with the fault tree because the fault tree boxes are these little things like this and sometimes you read what's in the box and you don't understand what's in there. They needed someone to walk them

through that. I think in general fault tree is more than enough to satisfy that requirement.

MR. PIERSON: As I read this line here at 3, it says, "A description of each process..." Then we work through and we say, "... in sufficient theory of operation for each process, the hazards that were identified in the integrated safety analysis pursuant to 70.62..." Then it says, "... a general description of the types of accident sequences;"

That would tell me that what you need to do is however you broke up your process, whether you want to take them in small discrete samples or large, however, you missed those processes. Then for each process you describe the hazards that were identified, i.e., criticality, fire, whatever it has to be in terms of how you poke those hazards out.

Then a general description of the types of accident sequences you could have. That's how I see that. I guess I don't see this as a very -- it could be en elaborate process but I think we probably need to get further into the specifics.

I think what we need to be careful of here is that we don't reach the point where a general description of the types of accident sequence translates into such specificity that you feel

overloaded by the volume and we feel overloaded by the review undertaking.

What we will probably need to do on this in reality is take some sort of selected sample and probably we'll need to go to the site to validate that selected sample. Then we'll need to extrapolate from that selected sample that the aggregate meets our expectations.

I think with trying to lay that out, maybe the devil is in the details and we'll have to go back and do this in terms of a specific example. I hear both of you. I'm not sure you're saying the same thing but I think I could probably do something if I had the process in front of me. Maybe I'm flattering myself.

MR. SCHITHEL: The only thing I would add about the Westinghouse process, it sounded like it worked up until the point where you rewrote what you originally submitted.

MR. McDONALD: We rewrote to try and clarify.

MR. SCHITHEL: Why would we have to do that if the vertical slicing convinced the reviewer that the fault trees were adequate, then why would you have to write anymore information for submittal?

MR. FARAZ: Well, looking at Westinghouse and a very peripheral view of it, I agree with Dennis in that fault trees should be sufficient to provide all the accident sequences for that process.

I think the information that was in the fault tree was kind of cryptic. Westinghouse wants its amendment quickly and, therefore, in everybody's interest could make NRC's review as easy as possible.

What Westinghouse provided in addition to the fault trees was very helpful for the NRC because it kind of elaborated on the accident sequences that were in the fault trees. Sam, you're right that fault trees do include the accident sequences and they should be sufficient.

MR. PIERSON: Unless you've got some sort of device to understand how the fault tree is set up, what the nomenclature means, what the abbreviations mean, how that works. You can take not an insignificant amount of time.

MR. FARAZ: But if you put yourself in the analysis of your shoes, it becomes very tedious to go through the fault trees to try and determine what the accident sequences are, what the connections are with the accident sequences and then make a safety determination based on that.

MR. McDONALD: For the benefit of the other parties here, what we've agreed to, the NRC and Westinghouse, is to actually have a site visit by the reviewer which is going on as we speak. The reason I mention that, I think it's been alluded to several times that it's probably impossible to get all of the safety information for a facility in the one document.

In fact, it wouldn't be an ISA Summary anymore. It would probably even be more than the ISAs themselves. I think that combination of the on-site present, reviewing the total system, getting to Steve's comment before, in combination with the summaries at the end of the day what it may take to resolve the differences. Of course, we are very anxious to see how this week goes. This is a trial run for the ISAs in general.

MR. FARAZ: One of the reasons why we're doing that is because we don't have Chapter 3 finalized. That's really an impediment. To make sure that we make a good safety determination, adequate safety determination, we are doing that.

It will be very difficult for us to do this for every single amendment that includes an ISA Summary in the future. I don't see us doing this kind of reviews for every single amendment. We could but

that would be very, very -- it wouldn't be efficient.

MS. ROCHE: Also, I think Edward pointed out this amendment is very special because you a fault tree, as you pointed out, was very cryptic. At the same time you need that amendment in a matter of weeks and it makes it very hard on the reviewer. This is why we are having that site visit but for all it would not be too practical.

MR. McDONALD: I guess my high level concern about this discussion, of course, is that it still comes down to reaching an agreeable level of detail.

MR. PIERSON: We could talk about that.

MR. McDONALD: I don't personally see how we are going to get there very readily, at least at this point.

MR. DAMON: Well, Steve and I were communicating on that. When you get to something as complex as that particular process that you had there, hey, there is no easy answer. That is my reaction to it.

You could try to synopsize it in some broad way at the top or send the whole fault tree. It's hard to figure what to do. I'm saying there's virtue to sending -- when you've got these simpler

processes, there is a virtue to sending in these shorter descriptions of these things.

Like I say, if it's complex and you don't want to send in the whole fault tree or you don't want to send in all the accident sequences, maybe you should just identify that, "Yeah, this is a complex process.

There's many different ways this can happen that involves a number of different types of controls and, I'm sorry, you'll just have to come down here if you want to dig into it."

MR. SCHITHEL: That might be a great alternative. I mean --

MR. PIERSON: We always thought that's what we would do anyway.

MR. DAMON: But, you know, what I'm trying to do is I really would rather that be done than somebody send us something that has no content to it. There is actually nothing to review in this Section H.

I think it would be useful to use it for some purpose. I see definitely you could dispense with the simpler processes by using this section of the summary.

I agree that when you've come to a really complex process, and by complex I mean it has a

diversity of different kind of controls. Like in this case it was a process where there's moderation control and getting control of the moderator in the material, the moderator getting into the material, and it could get in by diverse ways or you had to have different types of barriers to prevent so it was very complex, you know.

In other cases you may have a complex process but really all you're interested in is leaks. This thing could leak from somewhere. You don't have to tell every which way it could do it. You just say one of the accidents we're addressing is leaks in this thing. We've addressed it by whatever the strategy is.

It's either we are relying on the integrity of the piping or we're not and we have a dike underneath or it's safe geometry somewhere or something. You just explain that and that's enough, you know.

In some cases when it really is complex because you can't synopsize in one sentence what the defense strategy is, then what do you do except tell the reviewer, "This is a complex one. You may have to come down here to look at this one."

MR. PIERSON: In looking at the SRP it's

implied in there a number of places. It states in there that a site visit may be necessary. There is no real guidance in there as to when a site visit is going to be required or what you've got to do when you go to do a site visit and you're talking about a verification of whatever else.

It's kind of spread through there. It states that as a reviewer I don't think you have criteria saying these are the types of things that we would definitely need to go off and do a site visit for and this would be the objectives of a site visit in regards to this.

When we crafted this initially, our thoughts were that we would do effectively a vertical slice to the degree that we could with the summary. Then we would go down to the site and confirm that portion of the vertical slice what was present at the site. Then we declared victory and we won.

If we found problems in either what was provided in summary with the vertical slice, then we would expand laterally to try to develop enough review to make a determination. It was never our intention to be able to go through and review each of those points of the entire ISA. We don't have the resources to do that.

The generalities in terms of when you do the site visit is to some degree a specific application, specific to the reviewer, and specific to where you are in the review process. I don't think that we would want to put hard and fast criteria to say if X happens, go to the site and if Y happens, you don't go to the site.

MR. TUPPER: I agree.

MR. PIERSON: We're trying to establish a basis presuming initially we would have to do more than we would after we had done --

MR. TUPPER: But correct me if I'm wrong. I don't see the word vertical slice.

MR. PIERSON: It's not vertical slice.

MR. TUPPER: Okay.

MR. PIERSON: That's just the review approach. Now, remember conceptually what the standard review plan is. The standard review plan talks to the reviewer about how to do the review. He doesn't say in terms of how one necessarily has to conduct the review down to, say, a vertical slice. It is conceptually what you need to do to work through the review process.

The scope and extent of how you approach that review process is in large measure the discretion

of the management, the reviewer, the resources, the facility, the status of the facility, the reputation in terms of what to present. All those things help make a decision.

MR. SCHITHEL: That does go back to the point, though, that there is a format and content guide and you get into a habit of checking the boxes on a standard format and content guide unlike maybe a standard review plan.

We in industry have rarely had an opportunity to review a standard review plan but we have had opportunities for review of the standard format and content guide.

MR. PIERSON: So that's the problem.

MR. SCHITHEL: It might be. We're maybe not coming at this from the same paradigm.

MR. LEACH: This is guidance to the staff.

MR. SCHITHEL: It's also guidance to us, too.

MR. LEACH: I understand that, yes.

MR. SCHITHEL: We decided not to write a standard format and content guide.

MR. LEACH: The standard review plan is not inutible. It is essentially a broad-brush outline guide to the staff on how to do a review. More than

anything else it provides a check on the staff to say don't go beyond this. It's not to go to this. It's to not go beyond this.

Here's what constitutes an adequate review. Here's where you can declare victory. If you go through this process, your management and your organization will support you in your statement. That's what the purpose of the standard review plan is.

MR. FARAZ: Let me say a few words. I think it would be important for the reviewer to make a judgement on whether all accidents were considered adequately by the facility in the ISA.

Since you won't be providing that information in the ISA Summary, I think that is how it's going to turn out even though Chapter 2 is not finalized yet. That is the information that the NRC reviewer would have to look at within the ISA to make his determination.

MR. PIERSON: We would have to look at a sample.

MR. FARAZ: Exactly, but he has to be convinced. He can't just look at the ISA Summary and then know for sure that you considered all the accidents. In other words, the accidents that have

low consequences and are not in need of a high consequence, the NRC reviewer has to determine that yes, indeed, there are immediate consequences or high consequences.

For that the NRC reviewer would look at a sample within the ISA Summary and then try and make a judgment on that. Otherwise, all you are providing the NRC reviewer is the conclusion that this is the conclusion.

The NRC reviewer has to make a certain determination and the only way it can do that is by looking at a sample within the ISA. That is a real thing. I see people shaking their heads.

MR. SCHITHEL: I think I agree in concept. I'm not sure I agree in extent. Maybe there's a little extent issue there but in concept I agree.

MR. FARAZ: The NRC reviewer cannot review the entire ISA. We need a large number of reviewers to do that and we just don't have the personnel.

The NRC reviewer will look at the sample and the NRC reviewer has to get a good feel that within the ISA that was performed did look at the whole accident sequences and did adequately determine that certain accidents are low consequence and do not need to be included in the ISA Summary.

Then certain accidents are immediate and of high consequence accidents. That is a determination that the NRC reviewer would have to make. The NRC reviewer would not do 100 percent review. It's based on a sample. That is something that a site visit is how the NRC reviewer would do it because it would not likely be in the ISA Summary.

MR. KILLAR: I think the other thing, too, that concerns us a little bit, and maybe we're over cautious, is that we anticipate the reviewer to have what I would call a reasonable man standard.

If you have a storage vault that is poured concrete, the shelves are all metal, the fuel is in the canisters, metal canisters, the only thing you have in there is an electrical system for lighting and stuff, that you wouldn't expect a reviewer to come back and say, "How do you know there can't be a fire in there?"

We expect reasonableness that we won't have to answer those types of questions. I don't know what we can do to get more comfortable with that kind of thing.

MR. PIERSON: Well, the other side of that coin could be that one could say that we have considered the fire load and considered that there is

insufficient content of the material inside the boundaries of this to make a credible fire. Then we know you have considered it.

Otherwise we are left in the position you might say of the reasonable man standard, but unless somebody goes down there and looks over the process, we are making the assumption that you've done that job and without you telling us that you've done that job, you may or may not have done that job.

One could get into a situation, not necessarily from your example but possibly from something similar, or something could be overlooked so I think it would be better to say we have assessed this for fire and concluded that there is no fire risk and we don't need to wonder whether you've done it. You told us that you've done it.

MR. MANNING: I think another issue is there are several examples of ISAs that have been turned in in good faith believing that we have met the criteria although it was fuzzy when it was done but the response back was these things are sorely inadequate for us to do the type of review that our management is expecting.

MR. PIERSON: Maybe we have a disconnect with what the management is telling the staff. Maybe

that's what it is. Anyway, we're working on that. That's what we need to do. I would be reluctant to say that your ISAs are inadequate. I don't think we have really looked at them to the degree we could make a definitive statement on any ISAs being wrong.

MS. ROCHE: I don't know what you are referring to. Could you be more specific, please?

MR. MANNING: We have letters back from BWXT and Global Nuclear Fuels when they submitted them with their ISAs and their approach and said, "We are basically done. We think we have done a good job and the answer back is they are inadequate." We had a lot of those discussions our last meeting. I think that sets a lot of misgivings about where we're at today.

MS. ROCHE: I think you're referring to the old ISA summaries that were submitted not in alignment with Part 70 which the licensee themself requested to have it withdrawn and also requested for us to make comments to make sure and have sort of like an idea of which way to submit the new ones in alignment with Part 70 as to help them go along those lines.

When you talk about ISA summaries being rejected, that's not the case. The licensees requested to withdraw those ISA summaries and

requested vitals from us.

MR. FARAZ: My understanding is we have only two in-house currently ISA summaries based on these requirements. One is BWXT's amendment request and one is Westinghouse's ERBIA. Those are the two that we're looking at and we haven't really found information on either one.

MR. SCHITHEL: Well, I think you would also have a chapter in our license that contains our ISA summaries that have been submitted over the last four years that we did not withdraw.

They still exist and they sit there and they are part of our license application and demonstration section right now. We have acknowledged that there are some things we need to do to come into alignment with the new rule and we are doing those things now.

MS. ROCHE: We have the letter and I think you are referring to something else. I think what he was talking about were the ISA summaries that we sent I think in January.

MR. PIERSON: Let's not fight about specifics.

MR. SCHITHEL: The only other point on information I would offer, and I don't know if there's

an opportunity for you guys to think about this, but these are existing facilities and to the extent that the existing facilities have done an ISA and incidents have occurred, the inspection group is looking at the ISA in relation to the incident that occurred.

I think there is a lot of valuable information as to the adequacy of the ISA that was done coming out of your inspection group that says yes, in fact, this incident occurred and the ISA evaluated it and what they thought would happen did happen.

There might be an opportunity to existing facilities to use that information to build confidence and possibly reduce the amount of review you have to do. I don't know if you can use that in a licensing space or not.

MR. PIERSON: Okay. What else do we need to say about No. 3? Number 4?

MR. FARAZ: Moving on to No. 4. That's what we initially started with. I'll go ahead and read it. "Information that demonstrates the licensee's compliance with the performance requirements of 70.61, including a description of the management measures; the requirements for criticality monitoring and alarms in 70.24; and, if applicable,

the requirements of 70.64;" Does NEI have a perspective on that?

MR. KILLAR: I think this is the one that we had the biggest problem with because we don't know what would be acceptable demonstration to 70.61. We've suggested a couple of different things.

I don't know that we've got anything that we have identified or have been identified as an acceptable approach. We don't know how to read this right now.

MR. FARAZ: It is general. It starts off by saying that information that demonstrates a licensee's compliance with 70.61 so that's a very broad statement.

MR. SCHITHEL: I'm surprised we let it get through the rulemaking process in retrospect.

MR. KILLAR: There are several things we let through.

MR. PIERSON: I'll tell you how I would interpret this thing if no one else wants to pipe up. I'm certainly willing to listen to somebody else if you are willing to go ahead.

This says, "Information that demonstrates the licensee's compliance with the performance requirements of 70.61." 70.61 has a list of what I

would call rather specific performance requirements; acute worker dose, acute dose but no greater than total dose equivalent; 24 average release; acute chemical exposure, and that sort of thing.

That's talking about how you as a licensee assure that you don't exceed these dose limits or these requirements in 70.61.

What you would have in place is you would have, in effect, this is an aggregate of what you have done for your safety basis for your facility. You described what you got in terms of your management measures, how you maintain your qualifications, your quality assurance, your training, your procedures, how you apply your IROFS, how you make the judgments that the whole body of that process meets the definition or achieves these goals.

How I would suggest doing this is you've got in Chapter 11 the management measures. You've got in Chapter 3 the specific ISA requirements. You've got in the rest of your submittal a chapter on criticality, a chapter on chemical safety. You talked about fire protection. Each of those in part leads to a developed sense that this process is met for the ISA.

What I would suggest doing is taking an

example or showing an example and leading the reviewer through it. Take a process system and say, "We assessed this for fire protection by such and such. We have established the criticality measures by so and so.

We have concluded based on integrated safety analysis that the safety margin in this facility is defined by such and such and we have now provided the items relied on for safety to preclude the accident," and walk through that.

That demonstrates a compliance with the performance requirements such that now you can take credit and say that, "Given your implementation and your items relied on for safety, you are not going to get an acute worker dose of 25 rem or greater total effective dose because you're not going to have a criticality. You are not going to get an off-site release or whatever it is you're not supposed to do. You're not going to have a fire."

Then the problem here is how this demonstrates for each thing that you are going to do. I don't think that you need to go back and you staff maybe feel differently, correct?

I don't think you need to go back and show each item and each process and substantiate that.

That is a huge amount of work. I think you need to be able to substantiate how you do it at your site because you need to have it somewhere at your site.

What do you think about that?

MR. SCHITHEL: Can we record everything you just said and write it in the Standard Review Process?

MR. DAMON: Well, originally it was intended that there would be processed specific information. The idea would be there would be a general method for evaluating consequences and evaluating likelihood and those would be described somewhere as to how those were done.

Then when it came to the process specific, there would be a process description, accidents, and whatever information -- whatever qualifies the IROFS for this specific process had that made the accident highly unlikely.

The format of the NEI guidance document on the subject, that was an example of that, the table with scores in it. That is specifically the information demonstrating compliance is the combination of those as far as process specific goes. The process specific part was those tables in which the scores were given for accident sequences.

If instead of doing that you do something else, and that is taken together with the generic information about methods by which those scores were assigned, and the fact that the consequences are what they are.

The methods is one part, the management measure Chapter 11, all these things, that's all part of the story, but the original idea was there was a place for process specific information that said, "Yes, in this particular process we qualify as highly unlikely because we have got one of these and one of these."

If you don't want to do that, you don't want to provide process specific information, then you've got a problem. The problem is what you have is kind of like here is the method. We've done this kind of analysis and this particular process came out okay and that's all the reviewers got.

MR. PIERSON: That's not all the reviewers got. The reviewers got measures. He's got the criticality check. He's got the fire and protection chapter. He's got the processes that lead all that.

What I would see here is not so much that you have to recapitulate or redefine all those specific process things that we've got. That what

essentially this review is.

What I would say is you demonstrate for specific processes you've got, how that relates back, and you have met those goals, met your items to rely on for safety, how you define that. Say your ERBIA if you're a blender. How do you know that it's not going to be critical?

Well, we have crit. standards. You apply moderator control. We would establish fire protection. Then some of that is that you would believe that you have defined the accident sequence likelihood to be of such and such and, therefore, that is not going to develop from this off-site dose of 25 rem.

MR. McDONALD: I take it, and obviously there is some difference as I understand the discussion we're having here, but we would still have all the ISAs at the site so at the end of the day if the reviewer wanted to come for more examples, they could go to an ISA.

MR. PIERSON: But you would have to go through the process that you use to define that because you can't just say we submitted a crit., we submitted a fire protection, we submitted this, and there is staff for that. You are going to have to go

through and define that, demonstrate how you comply with the performance requirements.

MR. McDONALD: If I understand you correctly, Bob, you're saying you are really laying out the methodology. We would describe the methodology and use an example. That is where it would stop as opposed to covering every process.

MR. PIERSON: I'm asking the staff.

MR. DAMON: I can imagine -- like I say, I'm trying to think of -- it's just like this other one. The difficulty is finding a stopping point other than going to one extreme or the other here and it's difficult.

I can see some value to having the licensee or someone select a subset of the processes. Not every single process but a representative. By a representative subset I mean you don't want them all the same. You know what I mean? You want a variety of different situations because the process safety designs are so different.

They would select a subset asking to send the argument, this integrating argument for why the accident is highly unlikely for those processes, for subset 6, we'll say, and then you would have something to review.

Or include them in the summary when it's sent in. Something for him to review. But if there's basically nothing but the methods description, then what will have to happen is the reviewer will make a -- he will probably select from the processes in the plant, his own representative subset. He will come down there and look at the stuff down at your site. That's the difference. It would facilitate him.

MR. PIERSON: Let's talk a second about that. That's an intriguing situation. What would be a fair thing to agree upon? I mean, each of the representative processes or 10 percent or 3 percent or 100? What is your feeling about that? Do you have any perspective on what's going on?

MR. SCHITHEL: Commenting on what Dennis said, I think as licensees we are not suggesting we describe only the process. I think in the ISA Summary -- I'll speak for BWXT.

Our vision of the ISA Summary is that when I read it as a manager or when an operations manager reads the ISA Summary, he can take away from that ISA Summary the general kinds of accidents that can happen, and he can clearly understand why his facility is safe and the kinds of things that can make it unsafe. I think the ISA Summary has to do that beyond

just describing the process for executing the ISA.

What I don't think it has to do is have a tabulation of sequences that quite frankly I as a manager and that operations manager don't understand. There are people who do understand it and they can go add numbers and all that.

You've said it yourself, Dennis, that is not terribly informative when you're trying to understand what makes the facility safe. I think we're not saying we will describe only the process, but we're also not saying we think we ought to have tabulations of accident scenarios. There is an area in there where we can clearly communicate the safety basis without tabulations of accident scenarios.

MR. KOKAJKO: Could I add a comment? Based on our visit to BWXT as well as Global later on, what are things that would have impressed me in both my visits was for information that would demonstrate compliance would be to say, "Okay, here are your methods and here are your processes," which I think you did lay out very clearly.

Somewhere between that point and what I'll call the application, there were links that were missing. Perhaps part of that is a management measure and that could be quality control. It could be

training. It could be any number of things.

One of the things that I found that I still think is missing in this ISA Summary process is that link. For instance, if you are relying automatic engineer system, is it surveilled and how do you capture that surveillance requirement. But, more importantly, that you are relying on that as a component of your overall program.

If you are relying on a human performance issue or item, where is the training and how does that translate into whether it's a qual. card and a performance objective that you are training to. It could be on-the-job training. I'm not saying specific classroom. It could be any number of ways to get there.

MR. PIERSON: Let me ask you a question here just a second.

MR. MANNING: Yes.

MR. PIERSON: We have in our Standard Review Plan chapters on QA and management measures and so forth. Are we asking them to put in their chapter on management measures that, for example, they could say if we have an item relied on for safety, which is precluding a certain type of event or consequence, that we apply these measures to it, QA, training,

operator, whatever it has to be. Is that what we're asking?

Or when we come down to Chapter 3 for the specific application of Chapter 3, they submit information on a certain process. When one looks at that process one concludes that the consequences of an accident involving that process could reach a certain threshold.

Therefore, it has to have items relied on for safety. Those items relied on for safety have to have certain attributes assigned to them to preclude the accident or the consequence of the accident involving this off-site release.

Now, are we asking them to again in this Chapter 3 to define for that process specifically to Chapter 3 how they applied training, how they applied QA, how they applied management measures, or are we going to accept that if they put that elsewhere in the application that they would have applied those standards to the certain types of IROFS in this particular application?

Isn't that part of what your problem is in terms of the packaging and the level of detail that needs to be submitted on this?

MR. SCHITHEL: No. I think that is

actually a later point where we're talking about the list of the items relied on for safety. This has all the rules.

MR. PIERSON: Okay. So you're willing to do that?

MR. SCHITHEL: Well, the rule says all so all means all. I think we are willing to tie that maintenance to that particular item unless it is generic, you know. Every administrative control is accompanied by training. I'll make that commitment right now. I shouldn't need to say it for every control. I think --

MR. PIERSON: And you could cover that in your chapter on training.

MR. SCHITHEL: I think the issue is the sequences and the description of the sequences and all the numbers and the blocks and all that kind of stuff. I just don't see that as being terribly useful.

Now, it is useful for the vertical slice, if you will, where you come to the site and work through the process and convince yourself that we know how to use the process we described on certain high-risk situations or a spectrum of operations like you are suggesting.

MR. FARAZ: If you provide the NRC a list

of IROFS and try to provide them all, 100, 200, whatever the list is. There's no link between the IROFS and an accident sequence.

The NRC review would have a very difficult time in trying to understand what the IROFS is really doing.

MR. SCHITHEL: I think we can create the link in a generic sense without tabulations.

MR. FARAZ: If you can do that, fine.

MR. SCHITHEL: If it's a moderation controlled area you write a couple paragraphs about the fact that it is a moderation controlled area and you've got a whole list of controls about controlling moderation. That seems pretty clear.

MR. FARAZ: If you could do that, it should be sufficient. That is the key item that the NRC reviewer will be looking for, is the length between the IROFS and the accident sequence because the NRC reviewer is going to make a judgment for certain accident sequences that indeed the things that are in place are good enough.

Or he might come to the conclusion they are not good enough and that could result in a question. That's what the NRC reviewer is really trying to determine.

MR. SCHITHEL: Or he might have to ask a question in order to make any conclusion because I think it's going to be really difficult to have 100 percent understanding.

MR. FARAZ: If the link is not clear enough, then that will result in a question.

MR. DAMON: I think my impression from the safety designs I've seen is that it is overwhelmingly true that management majors like QA training, configuration management, maintenance -- well, let me back off and leave maintenance alone.

These other things are definitely generic things where in general you just have a section that says if the thing is an admin. control, the operator has to go through this part of our training program. He has an OJT thing that has a safety -- he gets trained in the safety procedures that go with this process and it just says that.

On maintenance, it would be nice in some cases if you told -- there are certain kinds of maintenance things that me as a hardware reviewer, I was in hardware maintenance for a long time, so I know the certain kind of pieces of hardware that require certain kinds of maintenance and that sometimes isn't done and sometimes it is done.

It would be nice if somebody would tell me whether they are doing it or not. In principle I don't think they need to be told. If you just have a maintenance program and then say if a thing is an engineered piece of hardware and it is identified as an IROFS, it is part of this formal program, it will get whatever maintenance it needs to be adequate and reliable.

In general that is the general story. You don't need specific information about most of these things. If there is something unique you want to tell the reviewer, fine. In general there is nothing to tell. The thing that is missing from that is there are certain characteristics of the whole -- how do I put it?

These things, QA maintenance and all that stuff, and the list of IROFS, these are just the individual things, the individual IROFS. There is this other story where you have the fault tree or whatever their action sequence is.

Multiple IROFS fail. This one has to fail. This one has to fail. That one has to fail before you get the accident. That is the part of the story that tells you that this is unlikely all right. It's got three things that have to fail. That's the

part where if there isn't process specific information, you can still do that.

It could have been done by the staff. The staff did that. It had a method like the NEI method, the BWXT method, the tabular thing or some other one where they say, "This is the method. We looked at each accident sequence and we gave it these scores according to these criteria written down. If it came out 4 or better, it was okay. We did that and we did it for everything."

There does have to be -- what I'm trying to emphasize here is this thing says, "Information demonstrates compliance." If you're not going to send process specific information demonstrating that with scores and stuff, still there is this tremendous value to have this system of scoring that has been done by the licensee and that exist.

Even if the information is down at the plant where the assignment of scores is not completely arbitrary, the scores have some meaning and they are done according to criteria that were down in writing that a team was following.

When I see information demonstrating compliance, that is actually the key part because this other stuff, the maintenance, the training, and all

this, I see that as generic stuff that if there is a commitment in the license itself that says, yes, this is in the Chapter 11 of the license and it says this is our program and we do this stuff for all our IROFS, then that is the end of the story for all that stuff.

The process specific part is what combinations of these IROFS for that process will get you to an accident. That's the unique thing to the ISA that has to have been done during the ISA and documented somewhere.

Now, originally the idea was these tables would all come in the reviewer could page through them. As we see, they get to be pretty voluminous so if you don't want to send them in, but the reviewer is going to be in this position, like I say, and he's not going to have anything to look at there but the method itself.

Now, it would be useful if, like I said, you send some examples of the application of the method so he gets a feel for what you really are talking about and then he can select from processes and he can go down there and look at some more.

MR. PIERSON: Well, what examples or how much of an extent do we expect? Do we want an example of each type of process based on safety, based on

outcome, based on chemical constituency, criticality? Do we want just two in general or what?

MR. DAMON: I mean, I could make up a list. There is actually a description in the Standard Review Plan, the section that talks about the procedure of doing the review where the reviewers are told to make a selection of processes.

MR. PIERSON: Why don't we take for action and for this one then we would come up with some sort of a process description that would describe what we expect to be submitted with that, the extent of it, two, three, four presumably as a sample set because we are not looking for all of it.

What do we think is a reasonable sample so that we could draw a judgment. We would still have to go down and maybe do a vertical on one of them but we're not asking you to come through and provide each of these processes. Would that be reasonable?

MR. DAMON: I mean, I could take a shot at describing something. We could reiterate back and forth.

MR. PIERSON: You don't need to do it now because we might even do it in Part 4 and we need to move on. Let's take that and see if we can come up with some sort of an action on that.

MR. SCHITHEL: As you look at that, I'll offer up to you we have a storage facility license amendment that you guys are currently beginning to review. That is pretty much our vision of what an ISA Summary is so to the extent that you want to understand what BWXT has been talking about, that's it.

MR. DAMON: What I meant by a set of examples is like that particular one. That would be a good example of a storage --

MR. PIERSON: We need to move on. I think we understand. We'll take yours and look at it and make up a list to come up with some sort of guidelines and we'll include it either later this afternoon while we're doing this in the revised version of this.

MR. FARAZ: Move on to item 5.

MR. FARRELL: I'm sorry. I think there is a very important item related to No. 4 which we haven't really addressed and that is the second principal concern I outlined in our letter and that's dealing with the emphasis on numerical analysis in coming up with your demonstration of compliance. I know we've gone over this many, many times before. I know at the last meeting Bob mentioned that you might come up with these generic --

MR. PIERSON: Not me but we. All of us came up with it collectively.

MR. FARRELL: Well, I don't see it in the Chapter 3 that you distributed.

MR. PIERSON: Remember what I said. I said we are going to have meetings and collectively come up with that.

MR. FARRELL: If this is guidance to the staff, there should be at least some indication. Maybe this is a work in progress. Needless to say, the idea that you can do your ISA analysis whatever manner you want to do it, but we are going to use these generic reliability or failure data to make our independent analysis.

That continues to be a concern in that approach to be able to demonstrate compliance with 70.61. I don't know if this is something you are still interested in pursuing.

MR. PIERSON: Oh, we definitely are. Our objective has always been to try to replan Chapter 3. Then in terms of defining, what this really goes back to is defining what is likely, highly unlikely in terms of the outcome.

What we had proposed at the time was to sit down with industry in a meeting similar to this

and essentially divine some sort of a process so we could establish something as a guideline that we could use for failure probability or the likelihood of operation of different components. That is what we use for that rosetta stone.

I don't necessarily think that process needs to be codified in the standard review plan. We could put it in there if you would like or add it as an attachment later on. I don't have any objection to that.

What I'm really trying to avoid with that is you assign something that is highly unlikely and we're looking at it as likely. I want to work that out so if we can agree that a certain failure probability of valve is X let's do it up front. If we can't, then we won't but at least we should try.

There is no way we can do that in time to meet this. What it will fold on is in terms of the application of likely or highly unlikely. If we could come to a conclusion how this process works, and you gentlemen are concerned about stepping into a void where you don't know what all the parameters are, then we can do it at that point.

We could set up and start that process. I think we need to do it collectively. It's not

something the staff is going to write down and submit to you guys for review. You guys are going to do it together with us.

We are going to sit in one room in public and write these things down in databases because we all have to understand the limitations on that. It's not like we have access to some secret information in terms of what the reliability of these things are just doesn't exist. We are just going to have to extrapolate the best information we can using the best judgment we can.

MR. KOKAJKO: I believe, as Bob said, continue on with the SRP Chapter 3 now and use what the SFPO model is which is develop interim staff guidance and that will augment the use of the SRP. It will also give you time to interact with the staff to come up with the data that is meaningful for you as we go through really the application of the SRP.

MR. FARAZ: Any other comments on item 4? Moving on to 5, "A description of the team, qualifications, and the methods used to perform the integrated safety analysis;"

MR. KILLAR: Once again, I don't see that we've had an issue with that.

MR. FARAZ: I agree. It's fairly

straightforward. Let's move on to 6, "A list briefly describing each item relied on for safety which is identified pursuant to 70.61(e) in sufficient detail to understand their functions in relation to the performance requirements of 70.61;"

MR. KILLAR: We've had several discussions about this and I thought we had a fairly reasonable understanding of this.

What our expectations were is that it would come out probably in a table format where you identify each item relied on for safety and you do it probably by process and management measures that are applied to that item relied on for safety.

At least that was my vision. I don't know what Steve thinks, if that is different than what we envisioned.

MR. PIERSON: Sounds good to me. Any comments about that? I think that's what we envisioned, too. We have the same music sheet.

MR. FARAZ: Just to reiterate what I had said before, the link between the IROFS and the accident sequence is very important for the reviewer. If that can be made, it will be sufficient.

MR. SCHITHEL: I guess the only thing I would ask is that I think we all have to make an

acknowledgement that sometimes you have to see something in order to understand that link.

MR. FARAZ: Okay. Sure.

MR. SCHITHEL: You can't always read it to understand it. It's difficult.

MR. KILLAR: Along those same lines, I think when you look at item 6, you have to look at item 6 in relation to item 4 because --

MR. SCHITHEL: They are intertwined.

MR. KILLAR: -- they are intertwined.

MR. SCHITHEL: Right. Absolutely.

MR. FARAZ: Anything else on 6? Moving on to 7, "A description of the proposed quantitative standards used to assess the consequences to an individual from acute chemical exposure to licensed material or chemicals produced from licensed materials which are on-site, or expected to be on-site as described in 70.61(b)(4) and (c)(4);"

MR. KILLAR: I'll have to putt on this one.

MR. SCHITHEL: I'll say something but it won't be much. We're struggling with this right now. The rule language is pretty clear. It says if you permanently hurt someone with a chemical, that's bad.

As I give the processes to my chemical

engineers and my safety people and I say, "Evaluate this process." Then I tell them, "Well, you have to have an AEGL or ERPG standards." They say, "Why do I need that? I understand these words. Why do I need that number to help me understand these words?"

We are wrestling with that a little bit right now. My safety guys clearly understand the words that say if you've caused a permanent injury to a person or if you caused a death because of a chemical but they're not sure they understand how to tie some other standard to those words.

MR. DAMON: Well, I think that they want -- what this is for is where you actually -- the only place I think we are just really -- these kind of standards are used is if you have enough of some toxic chemical or radiologic -- yeah, toxic chemical where you think you are going to exceed the dose -- you will actually cause those effects to an off-site person so you would actually have to do a calculation.

MR. PIERSON: Off-site and on-site.

MR. DAMON: Then the calculation to see if the dose level is going to get to that level then in order to figure out that you need to tell us what that exposure level is that you are going to use as the

criterion for saying the person off-site isn't going to have the effects that are referred to.

MR. SCHITHEL: It's the on-site ones that is the tough one because that applies on-site as well. If I have a big nitric acid spill, geez, I don't have to model that thing to know that if that guy stays there, he's going to be hurt bad. I don't need an AEGL to tell me that. So we're struggling with the on-site one.

MR. FARAZ: What you are saying, Steve, is that there may not be a correlation between the AEGL and the health effects.

MR. SCHITHEL: Yeah, I don't think the AEGL helps you understand the potential health effect in those on-site scenarios. We are not prepared to argue about that. We are just struggling with it right now.

MS. ROCHE: We like to use it as some criteria, some standard that would help you if you are making your calculations or whatever.

MR. SCHITHEL: See, that doesn't --

MS. ROCHE: I'm sure if you see the body all crisp, you'll know.

MR. DAMON: I've heard it said, and I think Global said it. They had a powder process they

showed us and they were talking about all the different ways powder could spill out of this thing. I said, "Well, why are you doing this? Tell me if any of these will actually give the operators an inhalation radiological dose exceeding these limits." They said, "No."

Well, tell me why. What this is addressing is why does he know that's true. If he explains to me how he can determine that that's true, that's all I need to know. I don't care if he gives me the number but if he has some way of showing why.

MR. SCHITHEL: But that's not an AEGL number. That's his calculation.

MR. DAMON: Yeah, that was radiological but, I mean, the chemical -- if the answer is that he doesn't, it's easier to do it the way you said it. If there's a big spill, I don't care what the number is. He's going to get it.

If the argument is, no, he's not going to get it, then, okay, explain how that rule sort of guides you to creating those quantitative expressions or values when you might not need to in order to just comply with the rules.

MR. SCHITHEL: It's not worth debating and taking a lot of time here.

MR. KILLAR: To me the issue is you say proposed qualitative standards so basically we're supposed to come up with the proposed standard and that is where we come up with and kind of fall short on what is a proposed standard, AEGLs or what have you.

Or you go back to 70.61 and you talk about acute chemical exposure to an individual can lead to irreversible long-lasting health effects, do you go back and look at the chemicals you have in your facility and determine what the criteria is for each to meet one of these type things?

It's kind of a hard thing to get your hand around to come up with a reasonable number. The extremes are easy. It's the gray area in the middle that is where the problem is.

MR. DAMON: I mean, this is just a suggestion. I mean, one thing for the on-site that I can imagine is there are different kinds of release scenarios, different scenarios like an explosion would be a different scenarios like an explosion would be a different scenario from just a leak where the material just flows onto the floor.

For each of those you say how big a one would we assume would give the local operator an

exposure exceeding the thing so it would be quantity or size of material released instead of an air concentration or something like that.

Pick a number, you know, and say below this we are pretty sure he's not going to get exposed. The virtue of this is to have a cutoff so you can say, look, this spill doesn't count. This one doesn't count. This one doesn't count. Otherwise, any kind of spill or timing release there is an issue. It's a suggestion. Just the released amount

MR. SCHITHEL: We'll work through it. We all will.

MR. PIERSON: Is there anything else we need to discuss here? Let's go on to 8.

MR. FARAZ: Item No. 8, "A descriptive list that identifies all items relied on for safety that are the sole item preventing or mitigating an accident sequence that exceeds the performance requirements of 70.61;"

MR. KILLAR: We don't have an issue with that. We feel actually this is a subset of the list that we are providing you up in Item 6, I think it is. All we're doing is saying out of all the items we have on the list, these two or three or maybe none are sole items relied on for safety. In most cases I don't

know if we have very many if any.

MR. SCHITHEL: If we do, we'll make them go away.

MR. DAMON: Let me describe one that I think is there where I don't really think you need to put it on your list, and that is the fact that you have a training program. At a high-risk facility you've got a training program that is such that anyone could be involved in or be in a position to handle or move special material.

They know that is only supposed to be done by trained qualified people following written procedures. If you didn't have that, you could have accidents where somebody goes out, collects up enough high-risk material and makes a nuclear criticality.

That sole thing, the fact that you have a training program that people aren't will nilly supposed to run around handling this stuff. This is the kind of event that has happened.

I've got at least two anecdotes where untrained people, people who did not know they weren't supposed to just handle special nuclear material went out and piled this stuff up and it was a sheer miracle they didn't have a criticality. That's a sole item.

MR. PIERSON: But this wasn't one of our

licensees?

MR. DAMON: No, this was not one of ours. The two anecdotes I have are DOE licenses.

MR. SCHITHEL: A lot of things broke down. That's not a sole item. Awful lot of things broke down for that to happen. That's not even close to a sole item.

MR. DAMON: What I mean by a sole item is -- see, that's why I think of the double petition process changes is because the fact that you violated a lot of different procedures, there's only one process change. That's when they actually move the physical material.

MR. PIERSON: If the accountability in high-risk facilities is sufficient, then that is hopefully not likely to happen.

Are we ready to go on to 9 then?

MR. FARAZ: The last item, No. 9, "A description of the definitions of unlikely, highly unlikely, and credible as used in the evaluations in the integrated safety analysis."'

MR. KILLAR: We know what you want but we're not sure how to provide it.

MR. PIERSON: Well, I think that process will eventually get us there. I mean, obviously you

are free to sit down and come up with some kind of process yourself because it is certainly up to you.

If you've done that, we'll accept that and look at it. I think what you get into is you get into a situation where we're not interested in having you go back and do reliability data on valve failures and even human actions in terms of infiltrating the procedures.

It's difficult to provide that sort of information unless we just all agree that if a person is trained, if the person has a procedure in hand, and if they are a qualified operator, that you can assign a certain expectation in terms of how likely it is that they are going to do something.

If we can all agree on that, that would go into this thing I was talking about earlier. Then the application of multiple examples of that would throw you likely or highly unlikely based on some subject table in terms of whether it is likely to happen, never likely to happen, likely to never happen in any of the plants ever.

Decide on the definitions and move forward. Now, what it comes down to is when you do that, it's easier to make the comparison with numbers. Once we do that we end up being criticized by people

that we are moving into a quantitative approach to this process.

We can talk in terms of words or in numbers, either one. It makes no difference to me as long as we all get to the point that we can agree on what they all mean. Then I think we can work through this process fairly expeditiously.

MR. SCHITHEL: I think our biggest concern is when we begin to talk in terms of numbers I still have a concern that there is a fundamental flaw in trying to take a commissioned strategic goal that there be no criticalities, turn that strategic goal into no criticalities in the next 100 years.

That's not what the commission said. They said no criticalities so why is 100 better than 1,000 or better than 10. They said no so you've taken a concept that the commission has put forth and turned it into a number and then tried to back into a number that quantifies highly unlikely.

I think there is a fundamental flaw in that logic. I think it's a very easy thing for a commission as a policy to say we don't want any criticalities in this industry. We want no criticalities. Commendable goal and strategic goal but not anywhere close to being something that you

would back into a number from. That's how you seem to have arrived at it.

MR. PIERSON: That's not exactly how we arrived at it.

MR. SCHITHEL: That's what the Standard Review Plan does.

MR. PIERSON: The Standard Review Plan is using that as an example. What we are really trying to do is come up with some kind of commonality in terms of what constitutes high unlikely, unlikely, or credible.

If you push that back into the realm of healing experience and try to make some kind of a common thread there, you could define terms so you can say highly unlikely is something that's going to happen on this sort of frequency, likely it's going to happen on this sort of frequency, and credible it will happen on this sort of frequency.

Then you could put those together so that if you could demonstrate the certain processes or certain attributes you design would give you highly unlikely or unlikely to use in a series. If they are mutually independent, you can boot strap up to do something that is highly unlikely.

Like I said, it makes it easier if you

assign probabilities but it's just to facilitate. If it creates an anxious situation, then we can do something else.

MR. SCHITHEL: We see it as a contentious facilitator if you will.

MR. PIERSON: It may be but it's like trying to define something in writing without an alphabet. One can work through a process and eventually communicate but --

MR. SCHITHEL: But we are forgetting our experience. This industry has operated in a double contingency principle for years and years and that experience has proven adequate. The application of that has proven quite adequate.

MR. PIERSON: I will say we are not repudiating double contingency. We are willing to acknowledge that in most cases double contingency will take you to some function that we would consider highly unlikely by most.

MR. SCHITHEL: Why do you say most?

MR. PIERSON: Because we have some examples from some licensees where they have applied controls and attribute them as being what I would call unlikely so that the aggregate is highly unlikely. When, in fact, they probably were somewhere down in

the credible range.

MR. SCHITHEL: That's not double contingency.

MR. PIERSON: That's exactly right. Exactly right.

MR. SCHITHEL: Double contingency equals highly unlikely. There's no room for however.

MR. PIERSON: It may be if it's applied correctly but there are people 00

MR. SCHITHEL: But if it's not applied correctly it's not a double contingency.

MR. PIERSON: We're in circular logic here but there are members of your industry, and I don't want to name any names, that have taken situations where they have said a control was X and multiple examples of this control constituted a situation which they allowed to be exhibited as double contingency.

While where one looked at the control that was put in place and the application of those controls, it was something that was credible. You have two credible events and two credible events don't put you in a situation where you are highly unlikely.

You can argue that is not double contingency. I agree that's not double contingency but what we're looking for to make the definition from

our perspective, if you want to say double contingency is highly unlikely is go through the thought process that you used to develop each of those controls.

If you can say here how we will apply control when it had these attributes, then you should get the point and then we could acknowledge that in your situation double contingency means highly unlikely. That's all. We can try. We'll do what we can.

MR. MANNING: You've got some definitions in the current SRP that talk about qualitative determinations of highly unlikely and unlikely. The way I understand the words, I can work with that.

MR. FARAZ: Do you think you -- Dennis was talking about this earlier, a scoring scheme that a lot of the licensees are using is extremely helpful for the reviewer and a scoring scheme like the sample in Chapter 3, something like that is extremely useful for the NRC reviewer.

What it does is it allows the reviewer to make a judgment on the licensee's judgment as to whether something is unlikely or highly unlikely.

Also it provides consistency between licensees and that's what you were talking about earlier this morning is consistency. We want to be

consistent. The only way you can develop that without a scoring scheme, the only way you can get consistency is if you have one reviewer review all the ISA summaries from now on and that's just not feasible.

I have already stressed that something that allows the reviewer to easily judge the licensee's judgment. A lot of this is judgment. In fact, most of it is judgment. It's not very quantitative. Something like that would be really, really helpful and would make our reviews a lot easier.

MR. PIERSON: Are we ready to move on? Do you want to take a short break, say five minutes? Do you guys need a break?

MR. FARAZ: I think we can take a break.

(Whereupon, at 2:46 p.m. off the record until 2:55 p.m.)

MR. PIERSON: What is it you want to do? At least we can say we agree on what parts we agree on. Then if we can't agree on some of those, we can go back to what we discussed earlier and start an approach for how we could revise it to be something we could agree on.

Would you rather go through the general climates you've got or what? I think to some extent

we sort of addressed those as blocking through the general description of the content of application. That was the hope anyway. As we start putting back into these specifics, then we can capture that.

I think one other thing I would like to point out, one of the comments that you mentioned, you said why doesn't the standard review plan essentially follow the guidance of 70.65 in the nine sections there. We are perfectly happy to do that.

To some extent it already does. Some of the places there may be where we have taken something and divided it in two groups. I think we've got 14 sections or something instead of nine but we are perfectly happy to make that work that way.

MS. ROCHE: But we have really nine. It's just that we have divided some training in two parts.

MR. PIERSON: We can do that.

MR. FARAZ: I did that in the redline strikeout. We don't have a problem in following that.

MR. PIERSON: I would suggest we start working through this. We seem to have general consensus on No. 1, a general description. Somehow allude to that and declare victory on that or what do we need to do here?

MR. FARAZ: Okay. I think we could

probably go to the nine elements and just discuss those. Or do you want to discuss the purpose of the reviewer as well? I think if we can just look at the acceptance criteria, then we will probably get the most bang for the buck.

MR. PIERSON: I don't know. I think we need to just walk through this thing. Let's go through this so we know where we are here.

NEI, you have proposed this purpose of review. You have essentially rewritten 3.1 in your submittal. Is that correct?

MR. KILLAR: Let me kind of give you a little bit of where we're coming from. The way you've got what you propose there, I think, is what we were looking at, is that there are two basic things; the ISA summaries and the ISA programmatic requirements. That was our expectations.

Then when you start going through Chapter 3 you get into the ISA results and summary. That's where you start to lead into confusion. When you say ISA results of summary, what do you mean by these? Does this mean that the ISA results are what's in the ISA Summary or the ISA results are the ISA and the ISA Summary is a summary of those results?

MR. PIERSON: Let me provide a little

background on that. The staff's purpose in their review is to give them comfort on your integrated safety analysis. The summary is what you provide as a submittal to allow the staff to provide some review and some comfort in terms of how they could achieve that.

It should be a mechanism to allow them to make a decision coupled with any necessary site reviews or something to accommodate that. We are not approving the ISA Summary. We are reviewing the ISA Summary to make a judgment on the integrated safety analysis.

MR. FARRELL: I think the rule says something to the effect that the applicant must submit the ISA Summary for approval. By approving the ISA Summary, you are kind of indirectly addressing the adequacy of the ISAs.

MR. PIERSON: The purpose of our review is not to prove or disprove the ISA Summary. The purpose of the review is to make a judgment on integrated safety analysis. You submit the ISA Summary and that's what we formally review coupled with going to the site.

The objective of this process is for the staff to be able to conclude that the integrated

safety analysis is something that is substantiated, what the purpose of this review is.

MR. FARRELL: Is the ISA Summary --

MR. PIERSON: -- that we approve. That's right.

MR. FARRELL: If you go back to these kind of high-level issues that we raised, to me this is the biggest area of misunderstanding is how can the person assign the job of looking at the ISA Summary indirectly obtain a feeling or understanding that the ISA was done at an adequate level of detail and sufficiently good method and so on.

I think we saw a disconnect in the way Chapter 3 was written in that you were hoping for a lot of the information to be included with the ISA Summary that would facilitate the reviewer making that determination of the adequacy of the ISA. I think one of the points that I was trying to make, or some of my comments is we agree whole heartedly on that. That is the strategies.

The ISA is the critical document but we need to put so much information in the ISA Summary to convince the reviewer but we must also make sure the reviewer understands that you've got all this information available to cite; the supporting

documentation, the ISA, the crit. analysis.

This to me was the real problem that I see is trying to overcome in Chapter 3. What level of information is sufficient for the ISA Summary to provide at least a road map to get back at judging the adequacy of the ISA.

MR. KILLAR: I thought about that on the way of the metro today and I came up with a solution so this is a metro solution. It's got about that much credibility for now.

The way we could possibly do that is as you go through the chapter, and I want to clarify that we also have distinct requirements of the programmatic requirements which are 70.65(5) or whatever it was. I think those are separate and distinct by themselves, the qualifications of the team and the structure of the team and things like that. I think that is a separate item all by itself.

As far as the ISA and the ISA Summary, I think a way to address this as you go through Chapter 3 is you put in what your expectations are for what will be in the ISA and then below that is what the reviewer expects to see in the ISA Summary that reflects that. That way there is a distinct difference between what's in the ISA and then what the

reviewer expects to see in the ISA Summary.

You get that demarcation, so to speak, as to where the level of detail is as to what goes in the ISA Summary. That is just a way of trying to get around this issue of where you cut in your ISA analysis summary.

MR. PIERSON: Sounds reasonable to me. Any comments about that?

MR. FARAZ: So what you're saying is that Chapter 3 could reflect what's in the ISA separately and then reflect what should be in the ISA Summary separately.

MR. LEACH: Right.

MR. FARAZ: Essentially what you are proposing is a two-tier approach to Chapter 3 because the comments don't seem to reflect that. Your comments seem to say that this is something that should be limited to the ISA Summary.

MR. KILLAR: The reason is that we were looking at Chapter 3 as only talking about what is in the ISA Summary and what we understand from our discussions today as in previous discussions is that the reviewer has to make sure they are comfortable with the whole ISA and the ISA Summary is just to help to give them that confidence level.

They's got to expect these things in the ISA as a result of what they are going to look at. I think if you make that demarcation clear in Chapter 3, we can go back, say, to Chapter 3 that covers ISA and we have a distinction between what's done at the site and what is submitted to the reviewer.

MR. PIERSON: I think that is a very real suggestion.

MR. FARRELL: Let me ask you a question. If the license applicant submits the license in a format that follows the 11 chapters of the SRP, Chapter 3 deals with the ISA, what would you expect to be described in there? Maybe Steve or others could say. What do you see going into Chapter 3 of the license application as opposed to what is being in the ISA Summary?

MR. SCHITHEL: It's primarily the methodology. Chapter 3 will have -- it describes the methodology. It describes what you are protecting against.. It describes some commitments to teams and the qualifications of the teams.

It describes the acceptable accident analysis methods, what ifs, checklist, etc. It describes how the ISA is documented. It describes the content of the ISA Summary. Those are commitments to

these other ground rules that we will operate under in executing the ISA and developing ISA Summary and submitting it.

MR. KILLAR: See, that's what I would call the programmatic issues, the programmatic part of the ISA.

MR. DAMON: Another way of saying it, I think, is the part of the ISA program you don't expect to change. I mean, it's going to be the same ten years. You know, it may change. Once in five years you might change it but it doesn't have detail in it about things that you may from time to time adjust.

I don't know if this is true but some people may have methodologies where the architecture, the methodology is going to stay the same but they may change their criteria around and move things around. If you are going to do that, put that part of the methodology in the ISA Summary because you only have to update that annually.

MR. PIERSON: Steve, we agree with your suggestion of taking the ISA and as you're talking about the purpose of the review and then you have a sub-tier down there, maybe a last paragraph or something and say, "The ISA Summary would contain..." That would be provided as part of the submittal. I

don't have any problem with that.

MR. KOKAJKO: Let me take that one step further. The standard review plan is guidance to the reviewers. Correct? So if we are reviewing the ISA Summary, perhaps we should only address just the summary itself and focus on the content of what we would expect of the ISA Summary.

MR. PIERSON: The problem with that is at some point we need to do this vertical slice so if we describe what our expectations are for ISA, and we have included what the ISA Summary is and we send somebody to the site, then we don't have somebody going to the site and not understanding what the entire scope of the Integrated Safety Analysis should be.

MR. KOKAJKO: Would a better vehicle be inspection guidance?

MR. PIERSON: I don't think it's part of the inspection guidance because it's part of the license review.

MR. KOKAJKO: It would be confirmatory.

MR. PIERSON: No, it's not confirmatory. It's part of the license review. That's part of what we established at the ground rules.

MR. KOKAJKO: I wonder if -- SRP typically

if it is guidance to the staff, I think the two-tier approach, I wonder if this is the vehicle for that latter portion.

MR. PIERSON: In some cases it would be overlapping but what it distinguishes it tells the reviewer what the Integrated Safety Analysis is and it will tell you what Integrated Safety Analysis Summary is.

MS. ROCHE: If we are in any way relating it to the parts that we are addressing.

MR. KOKAJKO: And I have a question for Steve. When you mentioned the methods of Ansiteen Falls documentation, such content as that. Would this also be the place where you would tie those discrete facility elements to ensure for somebody's safety such as training quality, surveillance, maintenance program, things that Dennis alluded to earlier?

MR. SCHITHEL: Chapter 11 would do that and the SRP chapter on Chapter 11 I think will allow for us to do that.

MR. KOKAJKO: Even if it's information that would be useful to determine that you meet the performance goals under item 4?

MR. SCHITHEL: Yes. I think that's why Chapter 11 is written, because it describes all those

management measures and the expectation that those could be applied to the items relied on for safety. There is linkage here. You are correct. There is linkage.

MR. FARAZ: So do we expect any item to provide us another redline strikeout version to incorporate this comment?

MR. PIERSON: Let's hold that until the end I suggest.

MR. KILLAR: As I said, it was a metro idea so it has to grow a little bit.

MR. PIERSON: I think what we should do is walk through the portions of this that we can do and then work through it.

MR. FARAZ: I think the way the Chapter 3 is written, it is intermixed. What NEI has done is wherever Chapter 3 talked about the ISA or alluded to the ISA, I formed that out in saying that should only cover the ISA Summary.

I haven't gone through all the NEI comments in detail but there are certain places where I would agree. There are certain places where I would disagree. I guess we can go through the comments individually and see how far we can --

MS. ROCHE: Through the ISA you mean.

Through the chapter.

MR. FARAZ: Through Chapter 3.

MR. MANNING: Before we go on, I feel quite strongly that this is the right approach that we should be focusing on, the ISA Summary here and further guidance for doing a vertical slice perhaps is something that should be added to towards the tail end of this SRP.

The item, the paper, the materials that that reviewer is going to have, first off, is the summary and he's going to be making an initial cut on whether we provided what he needs to do his homework so he can go out and do a vertical slice. I think it needs to definitely cover the ISA Summary.

MR. PIERSON: We agree that it needs to cover the ISA Summary. The question is whether it should also cover the ISA.

MS. ROCHE: I think dividing it as you wish might be more confusing. We could try to the two-tier whenever possible. Sometimes it may not be possible because we are going to fall into that the comment is repetitive and redundant. We have to be careful with that one. Why don't we do through the ISA chapter and see if we can work it out.

MR. DAMON: What I think is going to

happen here is this is going to be very difficult for us if we start marching through this to keep straight what it is you're doing because there are two -- how do I put it? If you talk about it and you say, "I'm reviewing the ISA Summary to see if this is a good ISA Summary," I regard that as not a very important thing in one sense.

Yeah, admittedly if it's a bad ISA Summary, then the reviewer is in trouble. He hasn't gotten the information that he would like to do. Ultimately he's not really interested. That is not as important as whether the ISA was done accordingly.

MR. PIERSON: Let's walk through this.

MR. FARAZ: The title of Chapter 3, Integrated Safety Analysis, you suggested that we say Integrated Safety Analysis and ISA Summary. I think that goes along with what we were discussing so it should be fine.

Then under 3.1, Purpose of the Review, you provide a comment No. 2 and you provided some additional language. Could you elaborate on that comment?

MR. FARRELL: These are more motherhood type statements explaining what is the relation between the ISA and the ISA Summary and the fact that

it is the latter document that the reviewer has to sign off on saying this is acceptable.

It also tries to address the issue that the ISA Summary does not and was never intended to provide enough information to enable the reviewer to establish the safety basis or to judge the acceptability of the ISA.

That is where I thought it might be better to put a paragraph at the beginning saying look folks, you are going to have to make at least one site visit to the facility to go over the background information.

There is nothing radically new. I thought it might be just a little better to say what is the road map and what are you going to be doing. That's all I tried to suggest here.

MS. ROCHE: Yes, but if you look at page 32 at the bottom, Area of Review, I think it describes.

MR. FARRELL: It actually mentions on I think four different occasions that the reviewer might have to go to the site to expect some of the background data which is fine.

I'm not objecting. I just was trying to consolidate that all in one. When you are laying out the road map this is the information you've got. This

is what you're going to have to do probably to provide the validation and so on.

MR. PIERSON: There are a couple of things that you have provided there that are a little bit difficult to walk through here. If you walk down to I think your second paragraph after your comment, you say, "The NRC neither receives or approves the applicant's or licensee's ISA."

As I tried to explain earlier, we are not in a mode to review the ISA but if we disapprove of the ISA, then we would not approve of the application. Do you understand the distinction there?

MR. FARRELL: This is kind of taking the words out of the regulation. This is legally correct and technically correct but I understand what you're saying, yes.

MR. PIERSON: You're not implying something?

MR. FARRELL: No. Just a statement of fact.

MR. FARAZ: There's just an additional sentence in the paragraph. This would be the third sentence. "After maintaining that facility," we would say, "The NRC determines the acceptability of the applicant's ISA. The NRC does this by reviewing and

approving the ISA Summary."

MR. FARRELL: I'm sorry. I lost you but what you said sounds good.

MR. FARAZ: I'll repeat it. I'll repeat it. "The NRC determines the acceptability of the applicant's ISA. The NRC does this by reviewing and approving the applicant's ISA Summary."

MR. FARRELL: Sounds fine.

MS. ROCHE: Where are we?

MR. FARAZ: I'm in the second paragraph, your second paragraph looking at your comments.

MS. ROCHE: The one that repeats the regulations?

MR. FARAZ: Right. It starts by saying, "The NRC neither receives nor approves." This is the redline strikeout version that you received from NEI.

MR. PIERSON: Other than that, are we willing to accept essentially what they provide here?

MR. FARAZ: I think by in large it looks fine.

MR. PIERSON: I'm happy with it if everybody else is happy.

MR. FARAZ: I'll tell you what. We'll provide you at a later date with our responses to your comments, written responses.

MR. PIERSON: That would be helpful.

MR. FARAZ: What we say here shouldn't necessarily be cast in stone and then this is how it's going to be.

MR. PIERSON: We hope to make progress, too. We are not going to noodle 3.1. Unless we have a significant problem we want to move on to 3.2.

MS. ROCHE: It's the same. 3.3?

MR. FARAZ: On to 3.3. We have these minor comments here. We thought about including the ISA safety program including the ISA commitments. I don't have a really strong commitment on that.

MR. FARRELL: It's not a major point but if you read the rule, the safety program includes three components, one of which is the ISA. I'm just trying to be consistent with the rule.

MS. ROCHE: That's okay. Under the ISA commitments he put in "including the ISA commitment." That's fine.

MR. FARRELL: I don't want to belabor it. I don't mean to nit pick all this stuff.

MR. FARAZ: Okay. I'm in 3.3.2. We had ISA Results that you want to change to ISA Summary. That goes back to is it the summary that we are reviewing and approving?

MR. PIERSON: It is the ISA Summary that we are reviewing and approving to make a judgment on the ISA.

MR. FARAZ: Right, but this portion of the chapter, does it apply to the ISA Summary or does it apply to the ISA in general?

MR. FARRELL: This is the ISA Summary.

MR. PIERSON: This is the ISA Summary because these are the things that you have to submit, 1, 2, 3, 4, 5, 6, 7, 8, 9.

MS. ROCHE: Wait a minute. What we had before here, "The staff reviews ISA results (primarily the ISA Summary, but may include other ISA documentation.)" Change it to what?

MR. PIERSON: What they're saying is they think it should say, and I tend to agree, that we're talking about what is submitted to the ISA Summary. This says ISA results. They are bringing that down more narrowly to the ISA Summary for what is actually being submitted to us for review.

MS. ROCHE: I agree because this is, again, one of those redundant things. Too many words perhaps.

MR. FARAZ: What I would offer is that in addition to the ISA Summary if necessary the NRC staff

may want to review some other ISA documentation. I think if we can throw that in there, I think that would probably --

MS. ROCHE: Yes. Say, "The ISA Summary which may also include other ISA documentation."

MR. FARAZ: "And, if necessary, other ISA documentation." Okay.

MS. ROCHE: Is that okay?

MR. FARAZ: Okay.

MS. ROCHE: That's fine then.

MR. PIERSON: The rest, moving through, is essentially the compilation of 70.65.

MR. FARAZ: Yes, 70.65. We agree with your renumbering.

MR. PIERSON: We're trying to make the use of each and all and every consistent. We will try to do that.

MR. LEACH: Under 1 do we want to capture our thought in the site description and then that stuff that's not captured in Chapter 1?

MR. PIERSON: I think we do that later on.

MS. ROCHE: Yes, we do.

MR. LEACH: We talked about those things.

MS. ROCHE: Compliance.

MR. FARAZ: Team qualifications. I would

say a few words on the methods. What I would propose is that you struck out a portion of the write-up under ISA methods. I would add that to team qualifications and ISA methods. I'm looking at NEI's comments.

It's No. 5, struck out comment 16. If you start from the second sentence, "If methods are adequately described in the license application, there will be no need to duplicate..." I think that is good information for the NRC reviewer. I would propose that we keep that.

MS. ROCHE: Is that okay with you?

MR. PIERSON: That's fine.

MR. FARAZ: Under 7 that you've struck out and made it 9, that's fine. You struck out "likelihood" from "definitions" and you changed that to "definition of terms." I would go back to the rule and just say "definitions of unlikely, highly unlikely, and credible," because those are the terms used in the rule.

Then the same thing, the same philosophy for item 8 that you've struck out and made item 4 is fine. Rather than saying "Compliance with 10 CFR 70.61," use the rule language that says "Demonstration of compliance with 10 CFR 70.61."

MS. ROCHE: Okay. I see what you're

saying.

MR. FARAZ: I think there is value in trying to use the words that are in the rule in the ISA Summary as much as possible and we agree with you.

MR. SCHITHEL: Would it help in this section to try to capture the thought process Bob went through in relation to this demonstration of compliance with 70.61?

It really results from an understanding of the license commitments and the management measures and the whole spectrum of information and that there is not an expectation that the reviewer is going to be able to go some place in the ISA Summary and specifically find this little block of information that demonstrates to the clients 70.64. I thought that was a real good thought process you described.

MR. PIERSON: We could get out the transcripts and find the paragraph.

MR. SCHITHEL: I think that would help the reviewer.

MR. PIERSON: I'll disavow everything.

MR. FARAZ: The rest of your comments under item 4 is fine. Item 6 is fine. The new 8 is fine.

MR. PIERSON: Okay. 3.4.1.

MR. FARAZ: 3.4.1.

MS. ROCHE: Felix do you like that table?

MR. KILLAR: I have a certain personal preference for the table, yes.

MR. FARAZ: I couldn't understand -- I'm on page 21 of NEI's document, 3.4.2, NUREG-1513. I decided we're about to finalize NUREG-1513 and you wanted it not to be referenced?

MR. FARRELL: No, that's not the case. It's just that we discussed this a lot at the February meeting as to when should 1513 be used. I remember Tom Coffs and maybe Dennis made some comments that certain aspects of 1513 were not updated to incorporate the changes made in Part 70. Certain information maybe on choosing methodologies I think was fine but use it judiciously.

MS. ROCHE: True. And 1513 was updated and then we got a comment from another stakeholder that said when is it going to be published so it's in the process of being published.

MR. FARRELL: It is? Okay.

MR. LEACH: That's the revised version?

MS. ROCHE: The revised version which is why it took us a while because it was finished but it was not in alignment with the latest. Dennis put

something else and Yawar worked on it and now it is ready.

MR. LEACH: That sounds find. I was just uncertain as to what the status was and if we could continue referencing it or not. Okay. That's fine. Good.

MR. FARAZ: 3.4.3.1. I'm not sure I understood.

MS. ROCHE: That's what we did. What do you mean?

MR. FARRELL: Well, yeah. This is talking about -- I think the thought here was, again related to the ISA. "Part 70 contains a number of specific safety program requirements related to the ISA. Acceptance criteria for these requirements are addressed by contents of the ISA summary." I think generally here I was just trying to focus on the ISA summary.

MS. ROCHE: Rather than the ISA?

MR. FARRELL: Rather than the ISA, yes. For example, the next sentence. "These include the primary requirements that an ISA be conducted." I guess you could leave that in. It has some historical interest but it's not something you would expect a licensee to be committing to because he's already done

the thing.

MR. DAMON: I think you misunderstand. This whole section that starts with -- let me see here. Where is it? Yeah, the whole thing of 3.4.3.1 is the amendment to the license that has to do with ISA so the idea about commitments is it's a commitment to continue doing ISA.

It says we will from now on whenever we have an amendment, whenever we create a new process we will do an ISA on it. That kind of thing. Whenever we make a change that requires a change to the ISA, we will update the ISA on that process. It's not kind of stuff.

MR. FARRELL: I did not understand.

MR. DAMON: It's having an ISA chapter in your license to talk about how you do ISA at your facility.

MR. FARRELL: This comes in under the change mechanism in making changes to the facility or whatever. Then you've got to run it through your ISA process.

MR. DAMON: Yes. In fact, that is really the most useful thing in an ISA type chapter. I mean, naturally it's going to tell you which method to use. It's going to have methods. We all talked about that.

Actually the part that is different from methods is the part that is really programmatic. It says the ISA program or the ISA manager or whatever and ISA will be done and that kind of thing.

MR. FARRELL: I misunderstood. You are quite right.

MR. FARAZ: I think the changes you propose in 3.4.3.1 appear reasonable.

Process Safety Information, No. 2. Comment 34 on page 22 of the NEI document. You have deleted a large section from the ISA summary. What I would propose is that --

MR. FARRELL: Well, actually it hasn't been deleted. If you read it those are all commitments and all I did is take all those commitments and stick them back into 3.4.3.1 which is the safety program commitment. They are all there.

MR. FARAZ: I didn't see starting from the second sentence, "The ISA must account for any changes made to the facility..." down to the fifth sentence. It says, "The applicant commits to using an ISA Team..." It goes on to say, "...to those used in conducting the original ISA."

That portion I didn't see transferred but, if it is, that's fine. If not, then we'll just add

that as well.

MR. FARRELL: Also, again this historical interest, some of that referred to the ISA specifically and my focus here was looking at the ISA summary so if it wasn't relevant --

MR. FARAZ: Okay. The same comments applies to comment No. 35 in that a portion of that was not included. That's the third sentence down to the end starting from, "If a proposed change results in a new type of accident sequence..." I didn't see that.

MR. FARRELL: It should be in No. C on the previous page. "The applicant commits to evaluate proposed changes to the facility or its operations by means of the ISA methodologies." That where I was trying to put it in there.

MR. FARAZ: Okay.

MR. FARRELL: If it's not quite, just change it.

MR. FARAZ: Under comment 36, I agree that the last sentence says, "Sufficient features, criteria, equations, and data must be provided..." It goes on to say, "...such that the processes show that the performance requirements of 70.61 can be met."

The word sufficient is gone away and you

took out that whole sentence. Is there something that you would propose to replace that?

MR. FARRELL: No, it's useful. I guess it went somewhere. I'm sorry but I just don't remember right now.

MR. FARAZ: Okay. We can read and propose something.

MR. SCHITHEL: I guess the issue is providing it to the staff. When we provide it to the staff, we agree that it must be included in the ISA Summary.

MR. FARRELL: Provided to the staff at the site. We'll make it available as opposed to providing it which may mean sending it into headquarters.

MR. TUPPER: Why don't we just change that to, "Sufficient features, criteria, equations, and data must be available at the site."

MR. FARRELL: That would do very well. That was the objection, I'm sure.

MR. FARAZ: I'm on page 23, right at the top, comment 37. You have deleted that one sentence that says, "The applicant commits to implement all IROFS..." What I would offer is to move that sentence down under management measures. I think that's where it applies.

MR. FARRELL: Management measures enable you to make that to them. They provide the support to that commitment. It is certainly a commitment. Whether it's under management measures I'm not sure.

MR. PIERSON: Were you thinking about moving that up to the commitment section?

MR. FARRELL: I think that should be in the commitment section, yes. You go through and you define and you designate the IROFS and then you have to commit to keep them in place and maintain by means of management measures.

I think CDO is more of a facility change process. It doesn't hurt to make it a separate heading.

MR. FARAZ: You eliminated 3.4.3.2 ISA Summary. Is that what you were considering this --

MR. FARRELL: At the time we prepared this we were looking -- this document would focus on the ISA Summary.

MR. FARAZ: Maybe you can go back to the ISA results and include the ISA Summary.

MR. FARRELL: You could do the two-tier approach.

MR. FARAZ: I would agree that accidents that do not have high consequences or intermediate

consequences shouldn't be in the ISA Summary. But when you talk about what we would expect of the ISA Summary, maybe we can relook at these comments and see how we can address it down to the word all.

MR. SCHITHEL: We even contradict ourselves. Clinton throws the word each back in there.

MS. ROCHE: He's also redundant and repetitive. Did you hear that, Clinton?

MR. FARRELL: I tried not to hear it. I think here I was trying -- you added a sentence, a very good sentence, somewhere. I guess I don't have the red copy here but you mentioned specifically that the ISA summary should have information on the high and intermediate consequence events somewhere. That's excellent.

I guess what I was trying to say here is we need to provide information on each of those high and intermediate ones but not necessarily on the low.

MR. FARAZ: As far as what you determine as low consequences would be something that the NRC reviewer would go to the site.

MR. FARRELL: Exactly. That was one of the critical things that has to be evaluated, methodology. Where do you call something to establish

the boundaries between those three.

MR. LEACH: Are the lows really low.

MR. FARRELL: Exactly.

MR. FARAZ: For instance, if you are using a computer code to determine what the consequences are at the fence line and you use it and you use various assumptions and input data that goes into the computer code. You determine that it is of low consequence.

The NRC reviewer can look at your model and make exception to some of the assumptions that you have made. He could disagree with the applicability of the computer code and say that, well, it's not really applicable in this situation. Those questions will be provided to you. I think that is how we will do the review.

MR. SCHITHEL: I'm still committed to general types of accident sequences even for the high and intermediate consequences versus each.

MR. PIERSON: Do we accept that?

MR. SCHITHEL: That's what the rule says.

MR. FARAZ: That's what we discussed earlier at length.

MR. SCHITHEL: That's why I said each found it's way back in here. It shouldn't have.

MR. FARAZ: Again, comment No. 40 is

saying the ISA Summary, not the ISA. You may want to keep that in for the ISA.

MR. PIERSON: The next comment 41, I think, we have already agreed to accept that.

MS. ROCHE: Comment No. 42, I think that would be very useful information for the NRC reviewer. That was the intent so we can modify that sentence there, couple sentences.

MR. PIERSON: Your comment here, if I could say something, where you say, "For example, if the 100-year storm occurred last year and there is one more year remaining in the plant's life, would not the likelihood of another 100-year storm be somewhat diminished?" That particular year or any given year the 100-year storm has the same problem.

MR. LEACH: We've had 500-year storms -- sorry, we've had 200-year storms on the Mississippi in the last five years.

MR. PIERSON: Given the probability and assuming the basis is correct, if you've had one it doesn't mean you are going to go for another 99 years. I'm assuming.

MR. FARAZ: I think information that might be useful to the NRC reviewer is not just 1000-year storm but maybe 500-year because various accelerations

would apply to various processes on site, or could apply to various processes on site. That will give the NRC reviewer a better feel for what the accelerations are.

MR. SCHITHEL: I'm not sure "for existing facilities" what you're going to do with that. We built to building codes in our chemical factories. They are what they are. I don't think anybody claims they would stand up in an earthquake of sufficient magnitude.

MS. ROCHE: This applicable.

MR. PIERSON: This goes beyond --

MR. SCHITHEL: I understand. It doesn't mean a lot to us for our existing facilities in a lot of respects.

MR. FARAZ: Under Facility, No. 2, it talks about controlling the boundaries. I would add to that also, and we didn't do this so this is something new that restricted areas also be identified.

MR. SCHITHEL: Are you guys looking at that piece of the rope, the restricted area, that one performance criteria at the restricted area?

MR. PIERSON: When you say looking at that, in terms of revising it or changing it?

MR. SCHITHEL: I had heard there was some discussion going on about whether that found its way in there by mistake or intentionally.

MR. PIERSON: Who would have released that information?

MS. ROCHE: That is not true information so it stays, it stays in the rule.

MR. SCHITHEL: Okay. We won't dredge it up here. It's just way out of sync. There's nothing going on to do anything about that unless we petition or something.

MR. FARAZ: On comment No. 43, page 26, you deleted the sentence that talks about "includes arrangement drawings and process schematics showing the major components..." Can you shed some light on this, please? FARRELL? KILLAR?

MR. ~~PIERSON~~: Yes, that is information that is very detailed in nature that I don't think is covered by a general type of information required in the ISA Summary. We are discussing general -- we are doing processes. To me that's -- we send in 1,000 arrangement drawings I don't think that's going to be very helpful to reviewing the ISA Summary.

MR. PIERSON: Is this another case where it's ISA versus ISA Summary?

MR. KILLAR: I think what it's saying, it says if appropriate there. There are some things where -- for example, specifically the drawings part.

MR. PIERSON: We're not asking for blueprints.

MR. KILLAR: There were in some of the ISA process summary descriptions like a drawing of -- you know, like a real cartoon. This thing is over here and this thing is over here and that's why you don't have to worry about this thing interacting with that thing.

There are cases where a drawing is useful of if it's appropriate, put it in. That's a general feedback for me and many of the reviewer's people -- like you say, sometimes you've got to go down to the site to see things.

Sometimes the only thing you have to see is the relative location of something and sometimes you don't need to go down to the site. It will be just as easy to make a little drawing and say it kind of looks like that.

MS. ROCHE: It simplifies review and perhaps avoid unnecessary site visits.

MR. LEACH: Except the "if appropriate" only applies to the chemical flow sheets. It doesn't

apply to all the others. Do we need to move the "if appropriate" up front?

MS. ROCHE: Well, we were trying to say the process schematics if appropriate including perhaps.

MR. SCHITHEL: I think you are correct.

MR. FARRELL: In fact, in one of my comments in general there is more information in the process descriptions than there needs to be. But then occasionally there is kind of a key piece of information missing.

MR. PIERSON: Would the same thing be true in C so instead of saying "includes schematics," "If appropriate schematics include safety and..."

MR. FARAZ: Steve, do you have any comment?

MR. SCHITHEL: It just depends on whether the glass is half full or half empty. We are going probably end up debating some of these issues during actual application.

MR. FARAZ: The next comment, No. 45, "Process operating ranges and limits." You're saying that need not be in the ISA Summary. That is something that should be in the ISA.

MR. MCDONALD: That was my suggestion,

yes.

MR. FARAZ: We have to think about that. It says we're doing this two-tier approach. You might want to clarify that this information could be in the ISA if we agree.

MR. SCHITHEL: One of the things we keep doing here is talking about the ISA as if it were a product. The ISA is a compilation of many processes. I don't want anybody to be confused and think they can come to the site and we'll pull out a book that says ISA.

The ISA has many foundations. It has safety evaluations. It has drawings. It has all these things are in different places. As long as we understand that we can continue to talk about the ISA as if it were actually something.

MR. FARAZ: Is one of the management measures then that you have a road map of what pieces fit into which ISA?

MR. SCHITHEL: It's the process safety information, that compilation of information, yes.

MR. FARAZ: And if an NRC reviewer comes to the site, he can pick up a document and you'll be able to tell him that this is part of the ISA or not.

MR. SCHITHEL: If it's a control document,

it's part of the ISA probably because there is just a whole population of control documents on our site that feed someone.

MR. FARRELL: Even somebody's qualification card.

MR. KILLAR: I think the appropriate terminology is ISA is a process. It is a thing that was an analysis that was done. Like Steve said, the process safety information is the physical documents and things.

MR. PIERSON: I can live with the disconnect in language as long as we understand.

MR. FARAZ: I'm on page 27. Can you say why you deleted that?

MR. FARRELL: That paragraph might have been appropriate when ISA methods was a separate item, one of the 14, but now, according to the rule, it's team qualifications and ISA methods lumped together.

MS. ROCHE: To keep it consistent.

MR. FARRELL: Yes, to be consistent.

MS. ROCHE: If we are going to go out over the 9, sure. They have to keep the right subtitles.

MR. FARAZ: Comment in the middle of the page regarding NUREG-1513.

FARRELL: Yes, it's appropriate. I had

better jump the gun here on comment No. 47. This is the first time that the reviewer is faced with evaluating risk. We are totally in agreement if you want to think in terms of risk but my concern was all of a sudden, bang, he's looking at risk and he has no idea as to how to calculate that risk. I refer to somebody totally new reading this document so I was wondering if you might want to put a few words in there explaining it.

MR. ~~FARRELL~~ FARAZ: I think that's fine.

MR. PIERSON: Do you have any problem with that?

MR. LEACH: One thing since you made that to clue the qualification team as well as methods. Nothing in this section now addresses the team so you need to add a paragraph about the team or a reference to the team.

MR. FARAZ: 48. I don't have a position on that.

MR. PIERSON: On the face of it, it sounds like a reasonable comment but there may be somebody who has some insight that I'm not aware of we need to take into consideration.

MR. FARAZ: Comment 49 seems reasonable. Comment 50.

MR. LEACH: I'm sorry. On 49 I understand what you're saying but what you're saying is the second half, the second set of sentences really says the same as the first one, as long as you meet the criteria. The only difference in the second part is the reasonable assurance statement.

MR. FARAZ: Comment No. 50, that is the link that we need between the IROFS and the accident.

MR. PIERSON: We leave each in there. They say, "Method shows clearly how each designated IROFS acts to prevent to mitigate the consequences." I think as long as you say "each designated" that would be okay rather than saying each IROFS. We're not saying designated. We are saying each. You're happy with that.

MR. FARRELL: Yes.

MR. PIERSON: Each is probably a little bit too --

MS. ROCHE: 280.

MR. PIERSON: We probably do need to --

MR. FARRELL: A list briefly describing each item relied on for safety.

MR. PIERSON: Each IROFS acts to prevent or mitigate the consequences. We scratch designated here.

MR. FARAZ: Comment No. 51 deals with double contingency. What you're saying is that double contingency should be sufficient and we had a discussion on that earlier.

MR. PIERSON: We need to make a description there of whether or not consideration is put out.

MR. FARAZ: The following comment where you added highly unlikely is very good. We had unlikely there but it really should be highly unlikely. We appreciate your input.

Do you have a problem with comment No. 52?

MR. PIERSON: I don't.

MR. FARAZ: No. 52 on page 30. We discussed this about AEGL and ERPG.

MR. MANNING: Just for consistency with chapter 6, for example, you use some standard which has never been published or you have to develop a new standard to justify your choice. Back it up with some data or whatever.

MR. FARAZ: The new No. 9 you have changed title from Definitions of Likelihood to Definitions of Terms. I would just like to keep Definitions of Likelihood because that's in the rule.

MR. MANNING: Before you mentioned you

were going to change it to be consistent in areas where the reviewers are going to say definitions of highly unlikely, likely, and credibility.

MR. FARAZ: Yes, because that's in the -- you want to add that?

MR. MANNING: That's what we should do.

MR. FARAZ: Good point.

MR. DAMON: See, this kind of thing relates to -- the definition of terms relates to that double contingency stuff that we talked about before. Like it says here methods relate and definitions work like together, you know.

If you are going to use double contingency, it's pretty clear what two means but every other single term in the double contingency statement has to be defined as to what would meet it and what would not meet it. Otherwise, there is no methodology there. If everything would qualify to meet all the criteria in there, then any two things in the universe would qualify.

That's my problem with double contingency. What I mean by robust or whatever is that you have a criterion for when you do or don't meet what is sufficiently independent, for example. That's a tough one. There are circumstances that you would say it's

not independent.

MR. SCHITHEL: There's a whole chapter in the license that talks about it. There's no reason for it to be inadequately described. We have devoted a whole chapter of our current licenses to talk about it for crying out loud. If it's inadequate today, for goodness sakes, where have we been?

MR. DAMON: I'm not talking about BWXT. There are other licensees who use the term.

MR. SCHITHEL: I'm talking collectively. Where in the world have we been? We've got a whole chapter on criticality safety in every single license. If it's inadequate today, good gosh, what's wrong?

MR. DAMON: I agree.

MS. ROCHE: Okay. It's 4:00 so we have two options. One is to continue and the other one to stop.

MR. MANNING: I would just as soon continue. I would rather not fly back across the country next week.

MR. PIERSON: Let's keep on moving on.

MR. FARAZ: All we're doing is giving you our perspective and we are discussing the comments. We will be providing written responses. We mentioned that so you won't need to come back.

MS. ROCHE: Let's move on. You don't need to come back.

MR. FARAZ: 55. I don't have a problem with that.

MR. PIERSON: I don't have any comments all the way up through 34.

MR. FARAZ: Yes, I'm on page 34. Quantitative Guidelines you have deleted the discussion that talks about quantitative guidelines have been developed. Can you shed some light on that?

MR. FARRELL: Well, I don't think the first -- what I struck out there really doesn't say anything. It's obvious we are all working towards trying to assess compliance with 70.61. I just don't think there is any need to repeat that.

MR. PIERSON: The definitions are based on NRC strategic risk performance goals.

MR. FARRELL: Very clear.

MR. FARAZ: I think what is being said over here is that it would be easy for the reviewer to correlate the guidelines to the licensees in compliance with 70.61.

MR. SCHITHEL: But what if the numbers aren't right? Nobody has made a determination of what the numbers should be. Okay? You are going to

arbitrarily say now that these numbers are right and then go judge the facilities that are sitting there that we have already judged to be safe. What if you find the facilities aren't safe? That doesn't mean the facilities aren't safe. That means the number is wrong.

MR. PIERSON: It could be but it also could be --

MR. SCHITHEL: The number is wrong. So to go in and presuppose we can lay a number here almost sets you up for the later determination that the facility is not operating in compliance with 70.61.

That is the industry's fear that a facility that has already been judged and determined to be operating safely and has a license is somehow going to be judged not in compliance with 70.61 when we start throwing numbers at the scenario or at the process.

MR. FARAZ: I think that's what the ISA should be doing. That's the goal of the ISA.

MR. SCHITHEL: I disagree whole heartedly. The goal of the ISA was to capture the safety basis of the facilities and that's why we petitioned for rulemaking. The role of the ISA was never to reestablish the safety threshold, if you will, at fuel

cycle facilities.

MR. FARAZ: So what you're saying is that the ISA is really documentation issue and not a safety issue.

MR. SCHITHEL: That's what we all agreed when we went in the petition for rulemaking. That was where the discussions that occurred at the commission level starting in 1991.

MR. KILLAR: The facilities have never been questioned through all the hearings, through all the commission briefings. The staff and the industry both have started out saying the facilities are being safely operated.

MR. SCHITHEL: Now, we did acknowledge that we may not have identified all the accident scenarios. We did acknowledge that executing the ISA would help us to identify those with the understanding we would go back and apply the same safety thresholds that we have applied that have made these facilities safe. I do not rebench my baselining safety at these facilities.

MR. FARAZ: I see the purpose of the ISA as identifying areas where you may have over committed but you don't need to have the amount of rigor that you may have.

Then conversely also identifying possible areas where sufficient rigor was not provided. I think that is the purpose of the ISA and that is there to enhance safety, not to say whether the plant is safe or not.

MR. SCHITHEL: But if you arbitrarily establish a number that is a safety threshold and that number is different than the safety threshold that has been applied to that plant and you come in and get those two together, now the entire plant doesn't meet the safety threshold.

MR. FARAZ: You are saying that a number has already been applied to the plant?

MR. SCHITHEL: I'm saying a process has already been applied and that process is called double contingency.

MS. ROCHE: I thought you said the number has been applied already to the plant so do you have such numbers?

MR. SCHITHEL: You take a number and try to apply it to the process. I may have misstated that.

MR. PIERSON: Well, it seems to me that there is truth in what you both said. It's clearly that an ISA ideally will be in a situation where if

there were some oversights or some inadequacies, if you would identify those and put some sort of measure there to compensate.

I can see where your situation would be that we would define, say, some sort of numerical or quantitative guideline for highly unlikely and find that is required for all the processes. Then march through the process and find one that didn't meet that threshold.

It's possible that could happen because, remember, double contingency has buried in it the raw process of what the control is. There is also these intrinsic measures of redundancy and depth that aren't always captured and can't always be captured in terms of how far, what your K effect is, how far you are and what the likelihood of things is.

All these different factors come in. You could, I guess, in theory be in a situation where you have applied a double contingency and you could be at the low threshold of highly unlikely or even below that where because of the actual implementation of all the things that happened, the actual consequence or likely the consequences is relatively low but it would be difficult to qualify it.

I guess what I would suggest is that we

accept your definition, "Quantitative definition and likelihood are based on NRC's strategic risk performance goals."

We would take from that that we would have to be able to work with your double contingency or whatever factors you apply and be able to extrapolate that and come to the same conclusions because if the double contingency is breaking down you're not going to meet your strategic risk performance goals anyway.

MR. SCHITHEL: I'm not concerned about the oneies and twoies. I'm concerned that if you came in and found half the processes and there is a danger that could happen.

MR. PIERSON: I don't think so.

MR. SCHITHEL: If you say double contingency is 10 to the -5 probability, that will happen. I can tell you that right now.

MR. PIERSON: I don't think that's what we should say. I think what we should say is double contingency in terms of likely and highly unlikely would really be a spectrum somewhere from 10 to the -4 to 10 to the -6 if you want to put a numerical value on it. Otherwise you are putting too much specificity.

I think that comes back to what we were

talking about, defining these likelihoods and consequences and the numbers. I like to use numbers because it's sort of better but if we don't, then we can probably work better. Do you agree?

MR. FARAZ: What I would add is that you wouldn't necessarily say that double contingency as 10 minus 4 or 10 minus 5, it's the totality is what we are concerned with. Just because, you know, a site loses double contingency does not mean a criticality will occur. There's always margin. And that's what we have to also consider. You say --

MR. SCHITHEL: But, you can't take credit for that margin unless you develop safety controls.

MR. PIERSON: That's right. That's right. But, what you could -- but, what you can be in a situation with is where you've applied double contingency to a process. It's relatively low on the spectrum. It doesn't maybe necessarily meet the highly unlikely, but implicitly the margin is such that you are highly unlikely but you never quantified the margin because it's difficult to quantify something like that.

MR. SCHITHEL: I could never sell that to you.

MR. PIERSON: No, you couldn't. That's

right. But, that's what double contingency is. That's the basis of double contingency.

MR. DAMON: One thing that might help is separating this section that talks about quantitative guidelines and putting it somewhere else because it follows right after this section acceptance criteria for quantitative definitions and likelihood which was put in there in case some facility like MOX or somebody chose to do quantitative analysis, a new facility set up quantitative goals and meet those goals.

But, the quantitative guidelines are not directly related to that. In other words, the quantitative guidelines really are kind of a stand alone little study of what would happen if half your processes in your plant were 10^{-4}. You know, where would you end up and what it's trying to do is point out that when you start reasoning in quantitative terms, there are consequences to having -- you know, 10^{-5} might sound like a small number, but if you got a thousand of them, it's 10^{-2} and if you got ten facilities then it's 10^{-1}. So, it's just drawing that consequence out of a bottom line number like that.

Just to give a reference point to anybody who wants to talk about numbers because some people

talk about numbers and they're just orders of magnitude off from where they would probably have to be and so, this quantitative stuff kind of stands by itself as a little reference point of discussing quantitative numbers and what they mean and why they have to be divided by number of accidents and so on.

So, that people who get into that don't start getting confused about where they've got to be, you know. It's not intended to be this is a number you've got to meet. The only person that has to meet a number is the guy who signs up for it.

MR. PIERSON: But, I think what they're concerned about is if we read this what was here before when it said quantitative guidelines had been developed because the staff will need to correlate applicant's definitions of highly unlikely, unlikely, and credible with quantitative guidelines developed and used by the staff to assess compliance with § 70.61.

That's pretty prescriptive in terms of demanding a number and I don't think that we can push for that. I don't think we have the regulatory basis, but I do think that we could say quantitative definition of the likelihood are based on NRC's strategic risk performance goals because that's what

the rule requires and then we're going to have to perhaps do some patching to go from one to the other, but I don't think that there's no -- there's nothing in the rule that says we have to provide that or they have to provide that quantitative connection there at least as I see it.

Any comments?

MR. KILLAN: I agree with you.

MR. PIERSON: Do you agree, Dennis? I mean--

MR. DAMON: Well, I agree that certainly the licensee who's not doing anything quantitative doesn't have to necessarily draw that connection. The question ultimately will be whether a particular combination that the licensee may say -- say for example, the licensee has his own criteria for planning what qualifies as doubly contingent and most of those are perfectly okay, but one of them will -- the question is which ones of those are okay and which ones are not okay. Are they just automatically okay or how does the reviewer decide that all the combinations of situations that the licensee says are okay, you know, or highly unlikely? How does the reviewer decide that he agrees yes, that's highly unlikely?

So, that's the dilemma you're faced with. If the reviewer has to apply some kind of a method or a criterion, if the reviewer has the same methodology as the licensee, then he's okay. But, I think what ultimately any of these methodologies have to do is they have to convince themselves by some kind of argument and sometimes it is a quantitative argument that the life accident actually is highly unlikely meaning some quantitatively sufficiently low number, you know.

MR. SCHITHEL: Aren't we just creating a problem that doesn't exist today?

MR. DAMON: No, I don't agree it doesn't exist. I think what's true is that there's a potential for processes that actually exist out there or that could be designed in the future to not be highly -- have access not be highly unlikely because the criteria for designing them aren't sufficiently well specified.

MS. ROCHE: I guess it goes back to the fact that it doesn't only apply to you to the fuel site.

MR. PIERSON: Yes, well, it doesn't -- it's not just --

MS. ROCHE: Think about it. At these it's

guiding through this time.

MR. PIERSON: Well, let's get back to the point here though. We can't -- there's nothing in rule that allows us to do what this paragraph as we wrote it. I mean if push comes to shove, we can't do that.

MS. ROCHE: But, it doesn't say that we can't.

MR. PIERSON: What it says is quantitative guidelines -- what it used to say is quantitative guidelines that were developed because the staff will need to correlate applicant's definition of highly unlikely and credible with quantitative guides developed and used by the staff would subsequently apply to § 70.61.

The fact of the matter is there's nothing in the rule that allows us to do that.

MR. FARAZ: But, Bob, if you look a couple of paragraphs up, it says an applicant may choose to provide correlated definitions of highly unlikely.

MR. PIERSON: That's fine.

MR. FARAZ: So, it's -- yes, it's allowing that option.

MR. PIERSON: But, the point is this paragraph stands by itself here. There's nothing in

this paragraph. If you want to say at the discretion of the applicant, quantitative guidelines may be developed because the staff would like to have them correlated with this definition, then that would be --

MS. ROCHE: We could say that maybe if you want to.

MR. PIERSON: But, I think it's better to say what proposed here. But, the point is it's written here. We cannot go down that path. It's not included in the lexicon of the rule.

MR. FARAZ: Okay.

MS. ROCHE: What he's proposing is to the NRC strategic goals.

MR. PIERSON: So, I would accept what you have proposed here. It seems to me that quantitative definition of likelihood are based on NRC strategic risk performance goals and I think that we could get from that proposal back to something that'll make a case. Because if it doesn't, then clearly we've got a problem that meets the definition of a rule.

MR. FARAZ: Fifty-six is fine. Fifty-seven fine.

Now at the bottom of page 35 and guideline value. The four times 10^{-5}. Oh, we'll just add that. That's per event per year. That's what -- the same

thing for 10^{-5}.

Fifty-eight reasonable.

MR. MANNING: That's usually dangerous. We've got a little -- I guess a big concern on the table. I'm talking about today we're just looking at -- the unlikely having a guideline value of four times 10^{-5} and highly unlikely with the guideline value of 10^{-5}. I'm not sure that the uncertainty isn't larger than the difference between those two values. What do you suggest?

MR. FARAZ: To do something that -- this is new.

MR. MANNING: Well, it seems to me an order of magnitude difference between unlikely and highly unlikely has been used in the past. Go back to table A-4 and it ought to be consistent. I just fundamentally believe that this process is great as long as we don't put too much credibility in the number used. It tells us relative to our facility, where we ought to be placing emphasis and in putting additional safety improvements where we may have over designed in the past.

MR. LEACH: I would agree that what is a -- risk -- or using risk of probability numbers as a magnitude is only one --

MR. DAMON: That's why the MOX people dispensed with that other guideline, that other -- the concept of unlikely. They went to a single -- they said we can't distinguish between these two levels. You know, they're too close together. So, they just have -- they just took the upper one.

I mean I agree the reason it was put in there was you might have a facility sometime where that wasn't -- it wasn't true. In other words, if there were sort of a category of accidents that fell in that regime and the staff wanted to alleviate that potential situation from imposing a higher or more stringent requirement that would go with fatal accident and imposing that on things that weren't really fatal. So, that's why that's -- it's purely in there for a technical reason. It's probably not of any practical value.

MR. PIERSON: The other thing is that these 10^{-5}, this third column, is added. That wasn't in our original submittal of March 30.

MR. FARAZ: Right.

MS. ROCHE: That's right. It was noted by NEI. So, he's making his comments.

MR. FARRELL: I was just curious. Okay. Let's assume we have a thousand accidents and then we

have NI and NH. What does that work out to? Okay. And then eventually in an appendix I think somewhere you actually used this numbers and this shows you where they come from based on the strategical. So, I just put it in for --

MR. PIERSON: That's fine with me. I don't mind.

MR. SCHITHEL: The whole application's really dangerous. I mean what happens if we have ten more facilities. The number of accident scenarios. Are we all now not in compliance with the rule?

MR. PIERSON: That's an issue.

MR. SCHITHEL: Well, why set ourselves up for the issue in this silly standard review plan? I mean way down -- we're not -- this is -- that's a policy issue and we're down here with a standard review plan.

MR. PIERSON: Why create the scenario where it -- it's a self-fulfilling scenario and it's going to become an issue. It's a policy issue. It's not a standard review plan issue. What value is it to the reviewer?

MR. DAMON: Actually, it was more something that would have been a value to the licensees to develop the methods by which they

determine that accidents are sufficiently unlikely at their facilities.

MR. SCHITHEL: But, I just explained to you that we have facilities and we've already determined that and we've done that -- we've verified that by doing the ISA project.

MR. DAMON: And if you find an issue, you'll deal with it. Right?

MR. SCHITHEL: And we have dealt with it and --

MR. PIERSON: So, what do you suggest?

MR. SCHITHEL: I would suggest you leave it out.

MR. PIERSON: Leave out what?

MR. SCHITHEL: The whole strategic goal connection that takes you down to a probability.

MR. PIERSON: So, what will you talk about here? Quantitative guidelines we've talked about including that or leaving this little table or what are you talking about?

MR. SCHITHEL: If you want to establish quantitative guidelines, just pick a number and put it in here and leave out all this mathematical manipulation about the bases and everything. Because that is of no value to the reviewer.

MR. PIERSON: What you'd say is like for highly unlikely we have assumed that it's somewhere say 10^{-4} to 10^{-6}. For likely, we assume that it's 10^{-3} or two or whatever it is. Credible is 10^{-1}.

MR. SCHITHEL: And if you need a technical document somewhere internally NRC says why that number was chosen and ties that to the strategic objectives, fine, but it --

MR. PIERSON: We'll take this for advisement.

MR. SCHITHEL: Yes, there's no value to that reviewer.

MR. PIERSON: We can go back and talk about this some more.

MR. FARRELL: The length of this description has been shrinking through progressive reviews and I think it's --

MR. PIERSON: We used to have several pages worth.

MR. LEACH: So, when we get to nothing, that should be the goal?

MR. FARRELL: But, I think -- this is one of the things I mentioned in my comment 57 that really this is a matter that the reviewers shouldn't really be too concerned about. These are the numbers 10^{-4}

and 10^{-6} is this and that's what he's got is a little cheat sheet to work with.

MR. FARAZ: On 59, I propose to rewrite that. Is just asking us to rewrite it.

MR. PIERSON: I would say so, yes. To me the categories are very well defined. They're not broad. Maybe I misunderstood the intent of the sentence.

MR. FARAZ: Well, what we're trying to say over here is that high consequence can go from -- anywhere from 100 gram to a worker up to whatever. There's no limit -- upper limit. For a member of the public, it's going to be five gram, you know, and up. So, 25 gram is like the lower limit and that's what we're trying to say over here is that it's not the -- the limit is not 25 gram for high consequence event. It's 25 gram and up. So, if a member of the public can receive 100 gram or 200 gram, well, that's a high consequence accident and that's how we should prevent it. But, you should prevent, you know, insure that the likelihood is such that if it's a very, very significant consequence, you know, then that's how it should be prevented.

MR. PIERSON: Okay.

MR. FARAZ: That's the -- it's not like

one level of protection. It's -- you know, it's a graded period approach.

MR. SCHITHEL: So, there are more than two consequence criteria?

MR. FARAZ: Well, let me put it to you -- let me put it to you this way.

MR. SCHITHEL: And two measures of highly unlikely. There's more than one definition of highly unlikely?

MR. FARAZ: Let me put it to you this way. If a member of the public, the nearest residence let's say, can receive up to a 1,000 gram. That's fatal. Would you apply the same kind of protection for that accident as you would if a member of the public can receive 25 gram?

MR. ~~PIERSON~~ Schithel: The question is not would I apply it differently. The question is does the rule require me to. The rule doesn't require it.

MR. FARAZ: Well, okay.

MR. ~~PIERSON~~ Schithel: As a -- as a good operator and as a conscientious person, yes and being responsible for safety, yes, we would do that. But, we're talking about what the rule requires and -- and it doesn't require that.

MR. SCHITHEL: It's not a scaled severity.

MR. FARAZ: And what the other -- he is saying is that we have to consider that.

MR. SCHITHEL: But, that's not in line with the rule.

MR. PIERSON: But, that's not in line with the rule. There's not a scaled severity that we apply. It might be good engineering judgment in terms of their application then, but that's not what the rule requires.

MR. DAMON: All right. No, what I think is true -- I mean seriously if this were to come up, won't come up at any of these facilities here but at MOX or something, you know, if there was a massive accident, it could kill hundreds of people. There is a provision in the rule that can be invoke. It doesn't happen to be this stuff that has to do with part -- with § 70.61. It's § 70.23 which quotes the Atomic Energy Act. It says minimize risk to life and property and I think if there were an accident, that would probably -- you know, a horrendous thing and somebody wasn't doing enough about it, that's what would be invoked.

MR. LEACH: And it's not going to be an issue of whether your ISA summary was written well enough.

MR. SCHITHEL: Right. It's a completely different issue, yes.

MR. DAMON: So, I think you're right. It would be better to take out the connection between highly unlikely and the extreme accident.

MR. PIERSON: The rule says the applicant's proposed equipment and facilities are adequate to protect health and to minimize danger to life and property. The proposed -- the applicant's proposed -- to protect health and to minimize danger are adequate where the danger is said to require consideration that the applicant appears to be -- that's what you're talking about. Is that correct?

MR. DAMON: Yes, but, that still doesn't say that for a 500 gram accident you have X and for a 1,000 gram accident you have Y. There's no scaling.

It's not -- no, in other words, you wouldn't -- you wouldn't take -- all I'm saying is how would you deal with that situation. You wouldn't use § 70.61.. You wouldn't use high unlikely. You would -- you would appeal to that requirement there and say that we don't think your minimizing risk enough, you know. The risk -- it is a risk thing. It's consequences times likelihood. We say gee, this is a big risk. It's not minimized enough.

So, I -- I'm kind of agreeing to take this discussion out of here, you know. I know I think -- I think Steve Schithel is right. That the rule doesn't very well support -- the rule language does not very well support what this says.

MR. PIERSON: So, what are we agreeing to take out? What page? Page 36?

MR. FARAZ: This is the paragraph under comment 59? So, what you're saying, Dennis, is that there are other provisions in the Act that would be invoked for situations like that.

MR. LEACH: Just to remove that paragraph. That work for everybody?

MR. FARAZ: I have ~~a~~ no problem with the comment 60. Same thing with 61.

MS. ROCHE: What did you say on 60?

MR. FARAZ: I also got ~~a~~ no problem with that.

MS. ROCHE: They're redundant.

MR. FARAZ: Same thing with 61. Sixty-two appeared reasonable. Same thing with 63. Same -- same with 64. Sixty-five, can you put somebody on that?

MR. FARRELL: Oh, sorry. I think one, two, three are fine. They could stay, but -- oh, four

and five seem to be more appropriate for discussion in the Nuclear Criticality Safety Program. I just looked back on chapter 5 and there -- they seem to be addressed there, but they appear here I guess.

MR. FARAZ: Okay. Sixty-six appeared fine. Same thing with 67. Sixty-eight is okay.

MR. DAMON: I think one of the misunderstandings of the terms in this comment 69 it refers to all and each and is being used too much. I think you're right. The language could be -- it could be said better, but what I think we're trying to get at here was that you're reviewing the ISA summary, but what you're reviewing it for is to get a feeling that the actual ISA that was done succeeded in identifying all of the accidents, you know. So, you get -- it's easy to get balled up with the syntax. You know, you're not saying the ISA summary has all the accidents, but that it convinces you that or gives you a reasonable assurance that the licensee has done this.

MR. FARRELL: Yes.

MR. DAMON: With his ISA, you know.

MR. FARAZ: Just to reiterate, what we're doing here is we're providing you all first crack at, you know, what our feeling is on all the comments.

So, if you see something different in our written product, you know, don't be surprised. This is just based on our very quick few day review. We only had like five or six days to -- to look at it. So, you do understand that. I just want to make that absolutely clear.

I'm on page 40. I had some slightly different way of saying that, but I -- the thing I'm saying is essentially what you are saying. This is on top of page 40. Unless you all are making some --

MS. ROCHE: The thing what your saying, he doesn't know where you wrote that.

MR. FARAZ: Well --

MR. PIERSON: Demonstrate completeness. So.

MR. FARRELL: I think the words I struck out there in accordance with the criteria of NUREG 13, that deletion should be reversed.

MR. FARAZ: Okay. That's fine.

MR. FARRELL: It's now at 1513 and --

MR. FARAZ: But, I'm looking at the -- the previous changes. That matter -- another comment there, what I wanted to say was to demonstrate completeness the general description of types of accident sequences must be identified using systematic

methods. So, it's the inconsistent references. So, it's the identification of those accidents that should be -- be using some systematic method.

MR. FARRELL: Fine. Okay.

MR. DAMON: See comment 70 about -- that's put in there. It says no, you know. It's acceptable if no accident was overlooked. Is that -- that's -- that's to cover the case where the reviewer actually thinks of an accident sequence that isn't -- that he sees has not been included. It's something -- it's not, you know, it's not in the analysis. So, that's prima facie evidence that something was overlooked. You know, he won't necessarily spot everyone of them if any were overlooked, but if he spots one, that's an accepted -- a nonacceptance criteria. Although probably should give him guidance on that.

MR. FARAZ: Seventy-one appeared fine. Yes, talk about comment 72.

MR. FARRELL: You don't have to lay out the -- to general -- your descriptions of general types of accident sequence on the table. Not necessarily I guess.

MR. PIERSON: You're still in agreement that you have A, B, C, and D that --

MR. FARRELL: Oh, yes.

MR. FARAZ: On number 73, you're saying that safety limits and safety margins should not be required in the ISA summary. Should that be something that would be in the ISA including safety limits?

MR. SCHITHEL: Not everybody, you know, has a requirement in their license to calculate safety margins. I understand that today.

MR. FARAZ: Right. Right. But, you know, as far as safety limits are concerned, is that something --

MR. SCHITHEL: Well, they can't put them in there if they don't know them.

MR. KILLAN: They operate with double contingency. They don't look to see how close they -- they have as far as how much margin they have in additional double contingency or even single contingency. So, they don't have margin or a --

MR. FARAZ: Right. We might propose a change to that.

MR. DAMON: You know, my own view about safety margin is that it's only used in certain circumstances by licensees. I mean double batching is an example. Okay. That's what I call a safety margin. If he -- it's not -- it's not a question of determining where critical is. It's that -- so that,

you know, one -- a second batch actually won't make it critical. So, whenever that's true that that's being used, it -- like we say, I've a mass control here. You could say it's -- it's a double batching thing. You know, this is a double batching situation. That's all that's meant here is that that should be referred so they -- he doesn't have to know the actual -- necessarily the quantitative margins.

The same thing with like overloading a transfer card or things like that. Most of the reason why these events don't result in a criticality is that it requires a gross overloading. So, that's what I mean by safety margin. You may not be able to quantify it, but just it should be stated the reason this thing is a good item or item for safety is there's a big safety margin here.

And, in fact, BWXT does a good job of that in this recent submittal. They explain why there's a safety margin here with this parameter over, over again and so, I didn't realize the extent to which that's true that in these facilities that's really what's being relied on, I don't know, half the time, two-thirds of the time. It's not the combination of controls. It's the safety margin.

MR. SCHITHEL: The deviation one thing.

If it gets back enough, it's going to take you critical. I mean if I put enough fuel in a pile, I'm going to go critical regardless of all my controls there. You're right.

MR. DAMON: But, I mean it's true. What -- in Westinghouse submittal, is this big blender hopper. Okay. It's given up mass control. It's only in moderation control. It's the same reason. The reason that's a safe process is probably the safety margin, you know, that is there. In other words, if the guy measured out one gram too much por former, it ain't going to go critical.

MS. ROCHE: Let's move on. Very few pages.

MR. PIERSON: Seventy-four, I agree with that. Do you --

MR. FARAZ: I don't have a comment number, but you changed some -- the wording in the last paragraph in page 41. No, with 75. Before you get to 75. It's a description of each IROFS must identify what measures such as maintenance ready. Wait. I think you are saying the same thing.

MR. FARRELL: They really just wanted you to say which -- for any IROFS one of the associated measures.

MR. FARAZ: Yes. That's fine. That's fine. I misunderstood. Seventy-five looked -- looked reasonable.

MR. FARRELL: My comment number 26 really addresses how the issue of criticality monitoring was developed in chapter five pretty thoroughly and I know the rule states in the § 70.65 wants you to specifically address § 70.24, but maybe this is something that can be referenced back to your description of your nuclear criticality safety program. But, that's not the only reasoning behind my comment there.

MR. SCHITHEL: There's a little bit of information overkill. I mean if we had tried to map the actual doses at the criticality detectors for every conceivable scenario at every conceivable detector, we've got over 200 of them in our plant, it might get a little bit onerous.

MR. PIERSON: So, what are you suggesting?

MR. SCHITHEL: I'm trying to figure that out right now, Bob. I got somebody working on trying to figure out how to meet the intent of this. So, actually I don't have a good suggestion right now.

The rule just says we'll describe the criticality monitoring system and how it meets the

requirements or something to that effect.

MR. PIERSON: Yes, but it doesn't say it's described in the ISA. It says the criticality acts and requirements. This could be -- is this -- are you -- in the critic chapter.

MR. SCHITHEL: It's in the ISA summary description as well though.

MS. ROCHE: It's § 70.64.

MR. SCHITHEL: It's in § 70.65 see (4).

MS. ROCHE: It says here § 70.64.

MR. SCHITHEL: See (4). It says description of -- the requirements for criticality monitoring alarms in § 70.24 and, if applicable, requirement § 70.64. So, you got with § 70.64. It says criticality control. The design most provide for criticality control including adherence to the double contingency clause.

MR. FARAZ: The long portion is in 65. It says information that demonstrates the licensee's compliance with the performance requirements of 61 including a description of the requirement for criticality monitoring and alarms.

MR. PIERSON: It says the requirement for criticality monitoring and alarms in § 70.24. But, § 70.24 is essentially the program that your crit

chapter addresses.

MR. SCHITHEL: § 70.24 gives you the performance criteria. The 20 reds at a meter.

MR. PIERSON: But, isn't that what criticality -- isn't that what you're doing for your criticality chapter?

MR. SCHITHEL: Yes, well, I don't know if it's in there right.

MR. PIERSON: It basically describes what you -- when you have to have a crit program in place, the grams limitation. It describes what the monitoring system shall be. Emergency procedures for the area. The whole -- that's basically your crit check. That's not your ISA check.

MR. SCHITHEL: That's true.

MR. PIERSON: That's my point. I mean the question here for the -- this is -- would it be sufficient to refer back -- just refer you to your crit check. Not going through this extra process and I think my sense is yes. Do you agree with that? I mean --

MR. SCHITHEL: Let's look at that, but I think that -- I think that I could accept that -- that.

MR. PIERSON: You could use as a refer

back despite the fact that the requirement says that you got to have for crit guideline remarks to § 70.24. It's basically referring you back to § 70.24. They've already covered that as part of the crit review. I don't know that we need to have -- regurgitate that.

MR. DAMON: Some licensees all they say in the crit chapter is we comply with § 70.24.

MR. PIERSON: Well, they'd have to say something more than that.

MR. DAMON: Yes.

MR. PIERSON: They'd have to say something more than that.

MR. FARAZ: As long as this --

MR. SCHITHEL: And I think that might be our case. Trust us.

MR. FARAZ: The intent of what we're saying in this paragraph is also included elsewhere and that should be sufficient, but, you know, if it -- if like Dennis says, you know, all they say is -- is meet § 70.24 and then --

MR. FARRELL: And you get -- I say you get before the crit chapter --

MR. SCHITHEL: But, my point is something we didn't even comment on and that is, you know, it goes a little far in asking for the actual neutron and

gamma doses. That --

MR. DAMON: Yes, that's -- that's -- I agree.

MR. SCHITHEL: That's a bit far.

MR. DAMON: I agree with that that when you figure out what could -- something -- some other thing that could be put in there. Want to rewrite that.

MR. PIERSON: We even may need to delete that. I'm not sure that's even in. Think about that.

MR. FARAZ: Seventy-seven looked reasonable. So did seventy-eight.

MR. SCHITHEL: This was a particular -- this was a good comment. This was a particularly tough thing for us to figure out where to put the information demonstrated in compliance with § 70.64 when we submitted the new facility. Because those are programmatic design things, you know. We have a quality system, an ISO 9000 design system and everything and those were things that would probably land in management measures under a new licensing scheme and format. But, they're not there yet. So, we had to figure out a way to satisfy this and it didn't fall in the ISA summary. We just sent it in as a white paper so to speak attached to the application.

So.

MR. FARAZ: Number 79 talk about the rosetta stone template and we discussed this earlier that our intent was never to include a rosetta stone template in the ISA. Maybe we will at a later date.

MR. PIERSON: They were trying to avoid a quantification. You guys go back and think about that. I don't have strong feeling one way or the other. I didn't want to imply that quantification is necessary. The purpose of this so-called rosetta stone, this template, was to provide a mechanism so that we all could speak from the same point. So that if you came in with an application, the staff would know where you came from. We'd know where we came from and we'd have a common point for comparisons so we wouldn't end up with this --

MS. ROCHE: Consistent.

MR. PIERSON: Consistent so the staff in the industry wouldn't end up arguing about what the reliability of a val one where who cares. I mean there's -- probably the uncertainty would overwhelm. You just come up with a number that was reasonable and apply that.

If you feel that that leaves you in a vulnerable situation and you want to have something

captured before we go final on this, we could probably do that. It would delay the this, but we could have another meeting and just set down and work out some numbers or whatever we wanted to do or definitions or how we're going to do it and move forward. Just pass that as an appendix or an addendum to this. It's up to you. Whatever you wish.

MR. FARRELL: I think we have issues of greater importance than that, but this does seem to be something we do want to work with you on. If this is going to be an integral tool to the staff to insure the consistency of reviews, then it would be nice to --

MR. PIERSON: Have it put in this?

MR. FARRELL: I think so, yes. But, I don't -- but, on the other hand, I can argue against myself. We don't want to delay this thing another six months.

MR. PIERSON: Well, I don't think we --

MR. FARRELL: We can't do that.

MS. ROCHE: How about if we finalize this and then we add the other one and -- but, we'll be working alone at the same time.

MR. PIERSON: We'll work out -- we'll work out a schedule. We're getting farther along than I

thought we would on this. When we finish this up, we could schedule another meeting to, you know, get back to you with the comments and so forth and then we'll try to schedule this rosetta stone meeting.

MR. FARRELL: Okay.

MR. PIERSON: And just come up with some reasonable numbers and some reasonable proxies and we'll just see what happens.

MR. FARRELL: That would be very valuable.

MR. PIERSON: Okay. All right. I think that's pretty much of my comments.

MR. TUPPER: Did we do page 45?

MR. PIERSON: Forty-five. Number 80. That's it.

MR. FARAZ: This is how far I've gotten until this morning. So, if we can just talk about comment 80.

MR. PIERSON: Yes, this is the issue where your -- it goes back to your concern about the introduction of risk into this -- well, we really have never defined risk previous to this point. We had it at one other place.

MR. FARRELL: Exactly.

MR. PIERSON: Took that out. Right. And I think what we need to do for this probably is

rethink this and talk about in terms of the performance goals.

MR. FARRELL: Yes, that would be a good solution.

MR. PIERSON: And I think we can probably do that. Are we not? We're not ready to do that yet.

MR. FARRELL: Okay.

MR. PIERSON: That's --

MR. FARRELL: Okay. Well, why don't we just leave this 3522 then for future --

MR. PIERSON: Okay.

MR. FARRELL: -- a rewrite in terms of performance goals as well.

MR. FARAZ: Do you have anything different than what we just talked about? This little comment in 36. See value and defining of 86.

MR. FARRELL: Number 86? Oh. I don't know. Do you have a problem with that? Looks pretty -- okay to me. You know the other one going down the list where you changed nine to -- 14 to nine. No, I think we've got something we can work with here.

MR. PIERSON: Good. That's great. I really appreciate the Xerox. It's a lot of work.

MR. FARRELL: Maybe before we go we can have a little bit -- are we up against a time limit

now? Can we -- can we spend ten minutes --

MR. PIERSON: Sure.

MR. FARRELL: -- making some general comments about appendix A. I know this is something we talked about ourselves and the reason we didn't provide any comments on it, I just wanted it deleted entirely. After bashing our heads against the wall, I think that was the solution, but I'd have to -- it's not a very productive one right now. So, maybe we should just score some ideas on that. Steve, would you like to kick this one off?

MR. SCHITHEL: Thanks. I feel partially responsible for appendix A. In that when we started the ISA, we said we needed a technique for consistency and we went in the chemical book and it tells you how to do this little scoring thing. We said boy, that's pretty neat. Can we frame that against double contingency and apply that technique to get the other disciplines up to where criticality safety has always been and it will add some consistency to criticality safety as we go through the facility and whatnot.

Unfortunately, the scoring technique and those tabulations of scores have taken on a life of their own and in retrospect, had I known then what I know today, I would have said no, let's not do that.

Let's just say we'll apply double contingency to all the other disciplines.

I would never have -- had I known where the scoring sort of concept would get us, I might have chosen not to do it at all. It was a useful tool for a while and it can be a useful tool going forward, but for this SRP to suggest that it's an acceptable and it's really the only acceptable method presented unfortunately, I think is an oversell and I think it sells a lot of these other guys who don't want to do that scoring way short. There's ways to do this process.

And I know it's thrown in there as an appendix and as an acceptable example, but there's no -- there are no others. So, I'm not sure what --

MR. PIERSON: Well, what are you suggesting? That you would think that you would need another example? Like appendix A and appendix B? Is that what you're suggesting?

MR. SCHITHEL: How would your reviewer use this acceptable example if somebody didn't choose to implement it?

MR. PIERSON: You saying rather than -- give me an example how they're set and what you're talking about.

MR. SCHITHEL: Okay. I'm a license reviewer now and I've got this SRP and I go to appendix A and it's got this acceptable example and what's been submitted doesn't look a thing like it.

MR. PIERSON: The question is whether it would be useful to have more than one examples of an acceptable example?

MR. SCHITHEL: It might be if you could develop it. But, I don't know how many examples of -- you still run the risk that even if you had three acceptable examples, somebody gives you a fourth, a number four that doesn't look like the threes.

MR. PIERSON: That's always the case. But, the -- what we were trying to do when we started down this process was to avoid having people go down blind allies.

MR. SCHITHEL: Right.

MR. PIERSON: That's really the question and you're in sort of a situation because you've worked through this process and I think you probably understand where the blind alley is, but on the other hand, hypothetically, if there were someone coming in with a new application some years in the future, would they necessarily have that. I don't know. I guess they could contact NEI and you would instruct them on

where the blind allies were.

MR. DAMON: No, I mean -- seeing as the rumor how long ago this all was put in there, at the time, there were a lot of licensees that hadn't done what you had done. They weren't where you were at. So, I -- we read over -- we wrote the first part the acceptance criteria and said these are the things you should think about in evaluating a method and they just refer to the same things as they're in a double contingency statement. I mean basically, you know. You think these are the elements that you have to think about, but we said, you know, if somebody reads this SRP and they're trying to figure out what we're really going to accept and they've never tried this, it's just going to go right over their head. So look, we got to put in concrete example. Well, we couldn't copy your method outright. We felt it was proprietary. Okay.

MR. SCHITHEL: It's not. It's right out of the chemical -- it's right out of the red book.

MR. DAMON: You'd like that to be the second example?

MR. SCHITHEL: I don't know.

MR. DAMON: So, anyway, we -- so, we put -- you know, we put some other method in there. Said

here's an example. It's a scoring method. So, that's all it is. In fact, it is not intended to be used like a cookbook for something. It just has the same structure as the kind -- in other they -- somebody comes and looks at your method, they should say oh, yes, that's the same thing. It's just a different, you know, different version of it.

But, the dilemma of acceptable. What is an acceptable method? That's a tougher one. That's why we get to this template stuff of, you know, really what is -- if you want to get serious, what would you really say is acceptable or not.

But you could -- you know, you could put in an appendix B that laid out a double contingency thing which when you analyzed the different combinations that it came out the same -- it would come out the same thing as the 01234 scheme that you've got.

MR. SCHITHEL: Well, that might be useful though. I mean if your real goal is to provide something useful to a licensee who hasn't begun yet, that might be more useful than what's in there now.

MS. ROCHE: Do you think we should --

MR. DAMON: I can see where the thing that's in there now is too complicated for most

people.

MR. SCHITHEL: I guess maybe as a suggestion maybe -- the SRP's a dynamic process and we're going to get to rev one and rev two eventually. Maybe you drop it out for now and let some of these licensees who are getting things reviewed get them reviewed and then you've got a basis for more examples and it could go back in later.

MS. ROCHE: Or you could take a shot at it now. Developing another.

MR. PIERSON: Well, what's your recommendation on that?

MR. SCHITHEL: To the existing licensees, it doesn't have enough value for us to work on it. The appendix won't have enough value for us to spend a lot of time working on it.

MR. PIERSON: We're very happy with the appendix.

MS. ROCHE: The staff is.

MR. PIERSON: The staff feels like it is a significant step in terms of being able to educate new reviewers coming into the process about how they need to do it. I don't know. Maybe we'll find out differently, but that's my sense.

MS. ROCHE: Perhaps at a later date as you

suggest, you know, maybe I could come up with another this -- this program.

MR. PIERSON: I hate to just throw it over the fence because it will become one of these, you know, gray matter things. People will keep a copy.

MS. ROCHE: Yes.

MR. PIERSON: And it'll live. So, maybe the better way to do it would be to try to fix it to be something better and if we -- if it's too specific, try to come up with another example or another --

MS. ROCHE: At a later date.

MR. PIERSON: Or even now if we could --

MR. KILLAN: Could we use it as part of the basis of starting the Rosetta stone?

MR. PIERSON: We could. I mean that's a possibility.

MR. SCHITHEL: Even if we leave it in as appendix A and just kind of overlay that.

MR. PIERSON: Well, let's take that for advisement. I think there's some good comments. But, I want to caution you that I'm not quite ready to kick it over the fence because I'm afraid if we do that it will live. Be like Dracula's dog. Keep coming back.

MR. MANNING: Well, at this point, those of us who are actively working on the ISA in hopes of

getting it right the only thing we've really got to go by at this point is appendix A on the way to package it.

MR. PIERSON: Was there something there that you feel like you'd like to change or recommend based on your working through the process? If there is, let us know. We'd like to know that. Because if it's useful to you, but it would be more useful if you provide some change to it. We'd certainly welcome that.

MR. MANNING: We struggle right now as we go through the process in a couple of areas. For those who are very detailed making sure the dimensional analysis works out on everything is bothersome. But--

MR. PIERSON: Well, any suggestions --

MR. MANNING: -- where you feel compelled to go that way because that's the only thing we've got to say that we've got a high probability of having acceptance once we're done.

MR. PIERSON: Well, like I said, if you feel that there is some way you could modify that that would prove it and not lose any of the value, by all mean send it in and we will consider that.

MS. ROCHE: Sure.

MR. FARRELL: There are some areas in appendix A that contain some very useful information by themselves. But, I think when you try to tie them together, they don't flow very well.

MR. PIERSON: That is true.

MR. FARRELL: For example, there's one table were you assign a numerical value based upon the type of IROFS and the text says you can incorporate this in some manner, but how that's actually done is never shown and that might stymie a reviewer. But, there is some very good by themselves snippets of information and I think that could be woven into good guidance.

MR. PIERSON: Well, we welcome comments on that and I think your idea of taking that template of the rosetta stone and trying to weave that in there is probably useful as well.

MR. SCHITHEL: I've got fully detailed engineering procedures on how to execute that. They stack up about that high. That say specifically how to do that. If we want to throw those out on the table as we're working on this thing, we can do that.

MR. PIERSON: It's more of a question for you guys than for us.

MR. SCHITHEL: All right. We'll be happy

to take whatever we can.

MR. DAMON: I mean the message that that appendix was trying to get across was the idea that one would develop actual criteria of some kind for what would constitute acceptable combinations of controls and that's all it's trying to say. The fact that you used actual numbers, you don't actually need to do that. It just -- that's a convenient way of doing it, but you can -- I mean one of the crit people actually did this one day. He tried to put together all different combinations of crit controls and he just got too -- this huge list of all kinds of things and it's just very cumbersome when you do it by brute force. So, the scoring thing is an easier way.

But the idea was to suggest that rather than a completely holistic evaluation where the -- the OSHA method kind of was like this. They say okay, at the end of your PHA, you all sit around with the ISA team. You say okay, guys, do you think this is a good enough safety design and if they say no, they make recommendations and they submit them to management and we just felt that the way BWXT was doing it was more clear and that it applied some kind of criteria as to what combinations actually ought to be considered acceptable.

But, my own view is any method like this is just, what do you call, I would call them a screening method for you to sort of know when you don't really need to worry about something too much and they're useful I think to focus your attention on something where you may have a question though. If something comes out with a low score, then, you know, why do we think this is okay and what I've discovered is, you know, like I said before safety margin often is the real answer. Is the reason these things are safe is they've got big safety margins on them.

MR. FARAZ: If a NRC reviewer looks at a certain accident scenario and determines that there are two Robique administrative controls, in his mind, Robique administrative controls in place, he will clearly question that. Every time the case is that there is ample margin beyond those controls, that's a showing that the criticality would not occur. That's been my experience. There's always that very, very large safety margin that exists.

Some kind of a screening method that would bring out these kind of scenarios that the NRC reviewer concentrates on and screens out the, you know, the strong robust controls from any further review. I think it's very, very -- will expedite a

review. He won't have to look at as many accident scenarios and the controls that are in place will show that safety is maintained.

So, that's something that would be very, very -- that is very beneficial to the NRC reviewer and it also provides a very consistent, you know, avenue that the NRC reviewer can use for all licensees. So, he's not, you know, it's a means of obtaining consistency and I think that's very important.

MR. PIERSON: So, we'll take that -- we'll look at that. You people look at it. If you have any comments, bring them in and we'll retain it, I guess, at least for now and take the -- try to work the template in as well. Because I do think it has some valuable information and I think that it's valuable enough that the likelihood that if we pretend like we're not using it, it's still going to be -- it's still going to be something that we ought to use because it's got information there. Okay?

MR. KILLAN: One last question, based on today's meeting and the input, what have you, what type of turnaround should we expect on -- say in the iteration of chapter three?

MR. PIERSON: Well, I'd like to propose if

you -- you all are controlling the resources, but we walked through the comments and I'd like to maybe have another meeting in maybe a month or so. Do you think we could support that?

MR. FARAZ: A month would be --

MR. PIERSON: Six weeks? That's pretty long. Yes, I think we're going to have to --

MR. FARAZ: We'll try and expedite it.

MR. PIERSON: Yes.

MR. FARAZ: We will do our best, but the comments are very -- fairly extensive and --

MR. PIERSON: But, we've accepted a lot of them and walked through them.

MR. FARAZ: Right.

MR. PIERSON: So, I don't think there's a lot --

MS. ROCHE: Let me suggest that we'll get back to NEI. But, I would say between four and five weeks because we're going to have it all no matter what.

MR. FARAZ: I'll be off two weeks.

MS. ROCHE: That's right. That's right. He'll be off for two weeks.

MR. PIERSON: Well, do you guys want to what -- but, I'd like to try something maybe by --

certainly by the middle of June and what I would suggest we could do is go through this process and we'll send you back a response on the status of the comment. We've tried to capture them here which ones were okay. A lot of them were okay and we'll also try to revise the language to reflect the comments. You can do the same thing if you wish.

I think that by and large we've accepted a lot of what you've said. So, it's not going to require a lot of change on our part. We can get that electronically.

I think that we'll leave appendix A as it is for now and we'll put -- leave still on hold at least for the interim because we don't have the resource to work at this rosetta stone template issue and what we try to do is come back in say six weeks or whatever happens to be time frame after we've given you the comments and you've revised this and maybe come to some consensus and say this really represents what we're doing.

Now, we're down to the stage of maybe minor edits and that sort of thing because I think we've made some significant progress.

MR. FARRELL: You mentioned earlier your intention to provide written comments to what we had

sent into you. I don't -- I would suggest you not spend a lot of time. I think we've really discussed them pretty thoroughly.

MS. ROCHE: I agree with you.

MR. PIERSON: I agree.

MS. ROCHE: I agree with you. I don't think it's necessary.

MR. PIERSON: But, the point is though this is a public process. It's not just us with NEI.

MR. FARRELL: Sure.

MR. PIERSON: And you've provided comments to us.

MR. FARRELL: Yes.

MR. PIERSON: And we need to disposition of those comments in some fashion. We can't just go through and say well, here's a version. Addressed all the comments. In some fashion, you're going to have to tie that together.

MS. ROCHE: Well, can we -- when we look at these comments and we come with another draft, could that be construed as our response?

MR. SCHITHEL: Can you make reference to the meeting transcript?

MR. PIERSON: We probably could. Let us think about that.

MS. ROCHE: Yes, I think it makes sense.

MR. PIERSON: But, I -- but, we're probably going to have to do something. There's some of these comments where we're going to have to think of some words.

MR. SCHITHEL: Sure.

MR. PIERSON: I don't want to put these people on the spot here. There's a process that we need to work through and we need to -- we need to -- we can't just keep flipping graph. We need to show -- explain what we did so that if somebody's trying to look in from outside, they can make the same -- come to the same conclusions that we have.

MS. ROCHE: Or perhaps our response could be we excepted this and this and this comments and if any there is a difference, those we'll respond to.

MR. PIERSON: That's what we have to do.

MS. ROCHE: And that could address the process.

MR. SCHITHEL: That would simplify your work I think.

MS. ROCHE: Yes.

MR. PIERSON: Right.

MS. ROCHE: Yes.

MR. PIERSON: I think that's probably

true.

MR. SCHITHEL: Okay.

MR. PIERSON: So, given that, we'll try to shoot for sometime in that mid-June time frame. It'll probably -- it may be the third week of June. Something like that. I'm not sure, but whatever.

MR. MANNING: If the meeting's the third week of June, when would we see the actual comments so that we can come to the meeting prepared?

MR. PIERSON: Well, what I'd like --

MR. MANNING: Three days before, four days.

MR. PIERSON: Well, what we'd try to do is we'll try to revise this and you got your resources. You know what you can do.

MS. ROCHE: I know what I have, too.

MR. PIERSON: Yes. And we'll try to revise the process and talk about comments and try to get that so you have it, you know, in a reasonable time frame because the objective of the next meeting would be to say this is --

MS. ROCHE: Let's put it this way. We had 80 how many comment?

MR. PIERSON: Eighty-five comments.

MS. ROCHE: Eighty-five -- 86 comments.

Okay. We have agreed on most of them.

MR. PIERSON: Yes.

MS. ROCHE: You gave it to us five days ago? So, I think it's --

MR. PIERSON: Well, we could -- we'll try to do that --

MS. ROCHE: -- fair that if we have the meeting by mid-June, we may give it to you with the same amount of time.

MR. PIERSON: No. No, we'll try to do -- we'll try to do a better than that if we can. I'd say early June.

MS. ROCHE: By -- we'll try to do better.

MR. PIERSON: We'll try.

MS. ROCHE: But, we'll let you know.

MR. PIERSON: Well, let me talk to the branch chief and Lidia and we'll try to come up with a schedule. But, the objective will be shoot for mid-June for the meeting and shoot for early in May -- early June for the disposition and comments if we can do that.

MR. SCHITHEL: Five-day turnarounds for us or for me personally are quite difficult to -- to --

MR. PIERSON: Yes, they are --

MR. SCHITHEL: -- allocate time and I

assume you have the same difficulties.

MR. PIERSON: Right. So, if we could do that, then by mid-June we could sit down and we could go for a goal to capture the rest of this and say this done and then focus whatever you need to do to appendix A, create a new appendix B, and put the rosetta stone together over the next like two or three months after that.

MR. SCHITHEL: Okay.

MR. PIERSON: But, at least then you'd have something down constitute the guidance.

MR. KILLAN: Is there anything we can do to help? We can do help with any of our resources?

MR. PIERSON: Let me get back to you on that.

MR. KILLAN: Talk to Marty or what have you to see if we can get some additional resources to help get this project moving along because, you know, we're out of work and we want to have this guidance wrapped up.

MR. PIERSON: You could take -- well, I'm not sure. Let me think about that. I don't want to say no, but there's probably -- there are probably some things we could do.

MS. ROCHE: We'll work it out.

MR. PIERSON: We'll get in contact with you on that.

MR. SCHITHEL: Sometimes learning curves take longer.

MR. PIERSON: Any comments? Want to end the meeting?

MR. FARAZ: Yes, we can I guess conclude. So. Thank you very much for attending and we hope to see you again in another month.

(Whereupon, the meeting concluded at 5:15 p.m.)

CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

Name of Proceeding: Nuclear Material Safety Safeguards

Docket Number: (Not Applicable)

Location: Rockville, MD

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and, thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

Eric Hendrixson

Eric Hendrixson
Official Reporter
Neal R. Gross & Co., Inc.