UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

***

MOX STANDARD REVIEW PLAN PUBLIC MEETING

NRC Offices

One White Flint North

Rooms 0-9B4 AM

0-16B4 PM

11545 Rockville Pike

Rockville, MD

Tuesday, May 9, 2000

The above-entitled meeting commenced, pursuant to notice, at 10:02 a.m.

P R O C E E D I N G S

[10:02 a.m.]

MR. PERSINKO: I'd like to welcome everybody to our public meeting today on -- to discuss comments and staff resolutions to comments received on the MOX Standard Review Plan, NUREG-1718.

What I'd like to do first is we'll -- why don't we introduce ourselves and our organization?

We also have folks on the bridge-line, so we'll get around to the bridge-line when we're done and you can introduce yourselves, as well.

First of all, can you hear me on the bridge-line?

MS. THOMAS: Yes.

MR. PERSINKO: Okay. Good.

I'm Drew Persinko. I'm the MOX Project Manager. I'm in NMSS.

MS. GALLOWAY: I'm Melanie Galloway. I'm Chief of the enrichment section in NMSS.

MS. BRYCE: I'm Amy Bryce. I'm a consultant to the enrichment section in NMSS.

MR. TIM JOHNSON: My name is Tim Johnson. I'm in the enrichment section.

MR. CONNELLY: John Connelly, US DOE, EH-51, which is regulatory liaison.

MR. JAMIE JOHNSON: Jamie Johnson, DOE, Technical

Manager for the fuel fab facility.

MR. FORTIER: Ray Fortier with DCS, as the MOX fuel fabrications facilities design manager.

MR. HASTINGS: I'm Peter Hastings, Stone & Webster Licensing Manager.

MR. MICHELSEN: Mark Michelsen, DCS Licensing.

MR. SILVERMAN: Don Silverman with Morgan, Lewis & Bockius. We're licensing counsel to DCS.

MR. SANDERS: Charlie Sander with Framatome.

MR. COX: Charlie Cox, NRC enrichment section.

MR. GLEAVES: Bill Gleaves, NRC enrichment section.

MS. KRAMER: Joel Kramer, Office of Research.

MR. SMITH: Wilkins Smith, Special Projects Branch, NRC.

MR. CASTANEIRA: Rocio Castaneira, NRC/FCSS.

MR. CLEMENTS: Tom Clements, Nuclear Control Institute, and we did submit some comments, and they're on the web-site.

MR. DELOZIER: Paul Delozier, private consultant.

MR. SOUTHWORTH: Finis Southworth, DOE materials branch.

MR. TABATABAI: Ali Tabatabai, contractor for the Department of Energy

MR. CRAWFORD: Sid Crawford, consultant.

MR. BADWAN: Faris Badwan, Los Alamos National Lab. I support DOE.

MR. HENNESSY: Bill Hennessy, DCS, nuclear safety consultant.

MR. PERSINKO: And on the phone, could you identify yourselves on the bridge-line, please? On the bridge-line, could you identify yourselves one at a time, please? I don't know who's all on the bridge-line.

Ruth?

MS. THOMAS: I'm on the bridge-line.

MR. PERSINKO: Ruth? Yeah.

MS. THOMAS: Excuse me. I'm sorry I had to interrupt, but I couldn't hear the names or much of anything else.

MS. GALLOWAY: Ruth, what we'll do is we'll ask that, as we get into the discussion on the SRP comments, that if any of those people sitting along the wall, not next to a microphone, if they would come forward and access a microphone, so -- both for the transcriber -- or if they come to the phone, which is sitting right there.

So, when people make comments, don't do it from the wall; come forward.

Okay.

That should help, Ruth.

MS. THOMAS: Yes. Some people I could hear and

some people I couldn't.

MS. GALLOWAY: Right.

MS. THOMAS: Thank you. I appreciate that.

My name is Ruth Thomas, and I'm President of Environmentalists, Incorporated, and I don't know whether -- when I will give sort of an overview or some general remarks.

MR. PERSINKO: We'll get to that. We're just having personnel introductions right now.

MS. THOMAS: Okay. So, I guess -- I don't know whether you'd want to know anything more about me.

MS. GALLOWAY: That's fine, Ruth.

MR. PERSINKO: That's fine.

MS. GALLOWAY: Is there anyone else on the line?

MS. THOMAS: Yes, there is, and let me introduce her, a member of Environmentalists, Inc., Leslie Minerd.

MS. MINERD: Hello.

MS. OLSON: In addition, there's Mary Olson, Nuclear Information and Resource Service Southeast in Augusta, Georgia, and I would request that the sign-in sheet reflect our participation and that, further, we be sent copies of that sign-in sheet so that Ruth has a complete list of the participants.

MR. TIM JOHNSON: For the transcriber, could you spell your name, please?

MS. OLSON: Mary Olson, O-L-S-O-N.

MR. PERSINKO: Is there anybody else on the bridge-line?

MS. THOMAS: No, but --

MR. PERSINKO: Okay.

MR. TIM JOHNSON: And Leslie Minerd?

MS. MINERD: M-I-N-E-R-D.

MR. PERSINKO: Okay. I think we've all introduced ourselves now.

Let me give a little background here first regarding the MOX Standard Review Plan, the NUREG-1718.

First of all, the MOX facility is going to be licensed underneath the Part 70 regulations that are currently being revised.

The Part 70 rule package revision has been forwarded to the EDO's office, and the package is due to the Commission on May 15th.

The process, as specified in NRC regulations, the licensing process regarding the MOX facility is such that there will be a construction authorization and then there will be an operating license.

In order for the staff to approve construction authorization, the three key components are an SER that supports the design basis of the facility, staff approval of an environmental impact statement, and an approved quality

assurance plan.

There will also be opportunities for hearings at the appropriate stages.

Along with the Part 70 -- part of the Part 70 rule package is a NUREG-1520, and I'm going to just be referring to by its numbers, 1520, and it's the Standard Review Plan for fuel cycle facilities.

Now, as I said, it's part of the package that went to the -- it's going to the Commission.

Because of the uniqueness of MOX -- there are some unique facilities about the MOX facility -- we thought it would be a wise idea to develop a separate Standard Review Plan, and that's the NUREG-1718 which is the subject of the discussion today.

The 1718 NUREG tries to follow the 1520 NUREG when possible.

Now, there are going to be differences between the facilities, because there are some unique aspects associated with MOX, and that's -- and we'll try to describe the differences when they -- when there are substantial differences.

One thing I'd like to point out at the outset is that the words in 1718 may differ from the words in 1520, but it's the substance that we're after.

I don't want to get -- I'd like not to get hung up

over words if the substance remains the same.

If the substance is different, we intend to discuss why the differences exist.

As I said, 1520 is due to the Commission on May 15th, and it will be given to the Commission on May 15th.

There will be a public meeting on Chapter 11 in 1520, which is the management measures part of 1520. There will be a public meeting on June 8th to go over that NUREG, Chapter 11.

Also, we've received some very recent comments on Chapter 3 in the 1520 -- on the 1520 NUREG. We've received them very recently, within the past week. So, we are still working on that, as well.

The package that goes to the Commission will likely not have those reflected in it, but it will be identified to the Commission that there are some very recent comments that the staff is still working on on the 1520 NUREG.

The results of those meetings will eventually be factored into 1718, as appropriate.

We plan to issue a second draft of NUREG-1718 by the end of June, sometime in June, and then the final version of 1718 will occur after 1520 is finalized, and we want to do that to assure that we have the latitude of incorporating any insights from 1520 into 1718 as they

arise.

The NRC has instituted its new electronic public document room known as ADAMS.

Many of the -- all public documents are accessible in the ADAMS, and ADAMS can be accessed via the internet, either from your home or any internet connection such as is in most libraries.

The MOX documents, including the comments received on NUREG-1718 are in ADAMS. I've checked them, and I have accessed those documents, and I understand you can also access them from an external web-site.

We are also establishing a list-serve provision here for the MOX licensing.

The list-serve will -- I don't know if anybody is familiar with list-serves in general from elsewhere, but you're on a list, and we use the list-serve provision to identify -- to inform members of the public, all stakeholders, about documents that come available or any other pertinent issues on MOX, but it's going to be that, when we publish documents or relevant documents, we would send out an e-mail and notify everybody.

As part of that, though, we do need e-mail addresses from anybody who wants to be on the list-serve, and we have a separate sign-up sheet here with just e-mail addresses, and we encourage you to add your name and e-mail

address to that list if you want to be included on our list-serve, and for the folks on the bridge-line, before you hang up or -- well, I'll tell you what, we could call you separately to get your e-mail address.

MS. OLSON: Thank you.

MR. PERSINKO: We're keeping that as a separate list just so that the e-mail addresses are separated from our other lists.

We're also contemplating having a public meeting sometime this summer, closer to the site.

I'd also like to say, then, that -- let's go over the agenda briefly right now for this meeting.

As you can see, it's quite full. There's a lot of times for each of the sections. We've allotted a 10-minute introductory comments from Duke/Cogema/Stone & Webster, denoted as DCS. We've done this solely because DCS is the applicant, and that's the sole reason we've allotted 10 minutes to DCS.

As far as the order of speaking, I'd like to -- I will check off the folks that have identified themselves -- I have a list of groups, individuals who have provided written comments, and I will just note here in a minute who is participating, and what we'll try to do is follow an order, and we'll start, say, in reverse alphabetical order and work our way back up as we start each time, so therefore

everybody -- there's no one comment starting point all the time.

Because of the time constraints, the format we intend to use is that an NRC individual will give a very brief overview of the comment and the resolution to comments or some of the main comments, but then we're going to open it up and we're going to ask for anybody who wants to bring up specific comments to be discussed in more detail.

I'd also like to point out that, at this stage, the resolution to the comments have not received any senior NRC management review. It's still at the working level and first-level management review.

MS. GALLOWAY: Following up on Drew's comment, the comments we're going to be discussing today reflect technical staff reviewers' assessment and revision to the comments. It has not received management review.

The SRP is scheduled to go into management review this week.

We are doing everything we --

MS. THOMAS: Excuse me. This is Ruth Thomas. I can't hear very well. I don't know what the problem is.

MS. GALLOWAY: I'll shout.

The SRP is scheduled to go into management review this week.

Given the very tight schedule that we are on, we

are doing everything we can to resolve and address late comments that have come in to us.

To the extent that we can do that, we will. However, there might be an occasion or some set of comments which we are not able to address because of the late timing in which they have come in.

Our schedule right now has us issuing the next version of the SRP in June, and we fully anticipate adhering to that schedule.

MS. THOMAS: Where will that hearing be held?

MS. GALLOWAY: I didn't mention anything about a hearing, Ruth.

MS. THOMAS: Oh.

MS. GALLOWAY: Was there something you were thinking of in particular?

MS. THOMAS: No, I thought you said a hearing will be held.

MS. GALLOWAY: No, I said we have every intention of adhering to -- A-D-H-E-R-I-N-G -- adhering to the schedule.

MS. THOMAS: Okay.

MS. GALLOWAY: Okay?

MS. THOMAS: Thank you.

MS. GALLOWAY: Sure.

MR. PERSINKO: Okay.

With that, 10 minutes are allotted for introductory comments from the applicant.

MR. HASTINGS: Thank you.

This is Peter Hastings, DCS.

First of all, for the people on the phone, can you hear me okay?

MS. THOMAS: So far I can. Thank you.

MR. HASTINGS: Okay.

DCS is pleased to be here and appreciates the staff's efforts to respond to our request for a workshop to discuss comments on the proposed SRP.

We want to first acknowledge the efforts of the staff, in particular, to juggle the parallel efforts of preparing the revision to Part 70, the NUREG-1520 and NUREG-1718 all at the same time, while at the same time fostering both industry and public participation in each of these efforts.

I think you've done an admirable job, and I want to congratulate you on the effort to date.

DCS made over 200 comments on the SRP, but as I said in my cover letter, I want to reiterate that the volume and detailed nature of our comments is an indication of our interest in getting to agreement on these issues in a timely way, not so much a reflection of our dissatisfaction with the document.

As you know, the DCS construction authorization request is scheduled to be submitted in late fall of this year, and while I can't give you a specific date at this point because of some detailed planning that we're still in the process of conducting, it's safe to say that we're targeting a date near the close of the calendar year for that submittal, and we'll be sharing more information on that with you as it becomes available.

So, obviously, the sooner we can all understand the resolution of our concerns with the SRP, the better off everybody will be.

We had three or four significant areas of concern, I'll call them, with the SRP, and they can be summarized in a few bullets, and then obviously we'll discuss the discrete comments during the section-by-section discussion of the comments you've received, both ours and other folks.

First, there was a clear effort made to distinguish between what's expected for the construction authorization request and what's expected for the possession and use license which is required by the uniqueness of plutonium facilities treated in Part 70.

In reviewing the details of what's called for in the construction authorization request, however, it seems that, in many cases, more detail is expected than what the rule actually requires and more than what we believe is

required to provide a safety assessment of the facility's design basis.

Second, there seems to be a great deal of prescriptive detail in the SRP, and in many cases an expectation of compliance with standards more typically associated with reactors.

We recognize that, in some cases, there's not a lot of guidance out there for a MOX facility, and some reactor guidance may be helpful. Some other guidance is not appropriate, as we've noted in several specific comments.

Equally important is the fact that the SRP seems, in some cases, to set a new standard, if you will, for demonstrating compliance with the recommended guidance.

MS. THOMAS: There's some problem on the phone here.

MR. TIM JOHNSON: We can still hear you fine, Ruth.

MS. THOMAS: Okay. I guess it was some -- on the line here.

I'm sorry.

MR. HASTINGS: That's okay.

As I was saying, the SRP seems in some cases to set a new standard for demonstrating compliance with recommended guidance, and it may be just the way that the guidance is worded, but it seems that, if DCS chooses

different guidance than what's recommended, the SRP requires us to focus on justifying deviation from the recommended guidance, as opposed to documenting why the guidance we have selected is important, so we want to make sure we clarify that.

Third, we want to get some clarification on the expectations for what information goes into the license application as compared to what goes into the ISA summary which accompanies but isn't part of the license application, and I know this has been the subject of some discussion in the 1520 meetings, as well.

Finally -- and this was also discussed at some length in the 1520 meeting -- there's a lot of confusion regarding the definition of likelihood thresholds for the ISA. As I mentioned, this was clarified to some extent in the recent 1520 meeting, and we hope to confirm primarily what we thought we heard in that meeting.

That concludes our opening remarks.

MR. PERSINKO: Okay.

MS. OLSON: Can I just ask what an ISA is?

MR. PERSINKO: Yeah. ISA is an acronym that stands for Integrated Safety Analysis.

MS. OLSON: Thank you.

MR. PERSINKO: It's a term that's in the revised Part 70 regulation that I have referred to.

MS. THOMAS: I had a question, too, about this NUREG-1520, what the relationship is, and you spoke of a meeting, and how is the public involved in this? I don't understand the two.

One time somebody said something about the substance, the substance was the same but the words were different or something.

MR. PERSINKO: What I said earlier on in my intro remarks was that we tried to maintain the substance of 1520 and 1718, where appropriate, and largely it's appropriate. There are some deviations which we've tried to denote in 1718, as well, though, because of any unique aspects related to a MOX facility.

As far as 1520 goes, that's the Standard Review Plan that's part of the Part 70 rule package. It is on a Part 70 web-site that was established.

1520 has been the subject of many public meetings that were associated with the Part 70 rulemaking, and that Part 70 rulemaking has actually been going on since approximately '97.

I'd say it was intensely going on within the last two years, say, approximately two years, is when a lot of SECY papers were issued, but the NUREG-1520 was always a subject of the public meetings. In fact, we've had separate public meetings just on 1520 alone, separate from the rule

language in Part 70.

So, that's the relationship between the two NUREGs. Like I said, 1520 specifically is for fuel cycle facilities; 1718 is specifically for the MOX facility, but it draws upon 1520.

What I'd like to do -- a few folks walked in late, and I'd like to have them introduce themselves.

MR. FARRELL: Yes. This is Clifton Farrell from NEI.

MR. STRUCKMEYER: I'm Rich Struckmeyer with the NRC NMSS.

MR. PERSINKO: Are there any other folks that wish to make opening comments?

Anybody on the bridge-line wish to make an opening comment?

MS. THOMAS: Well, yes, Environmentalists, Inc., planned on having an opening comment or overview or whatever you want to call it.

MS. GALLOWAY: Go ahead, Ruth.

MS. THOMAS: Our organization appreciates the opportunity of taking part in this meeting by phone. It's a new experience.

But much as we welcome being able to be involved, it's far from being what we -- far from being a formal proceeding in which there would be other provisions like

sworn testimony and cross examination and more time, because I can see we're not going to get through this, and there is the problem of other organizations not being present because of the Washington meeting, because of the short time.

Anyway, we have many questions and issues to raise, and I am not sure how to proceed with that, because we have basic concerns regarding the decision-making process used by the Nuclear Regulatory Commission, and then we have questions and comments that relate to the various agenda, and we want to do it in as efficient a way as possible and don't want to interrupt people, but sometimes if the questions come up, it is hard to, you know, understand clearly what is going on and how many proceedings you have to be involved in, how many laws you have to look up, what you have to do to really understand the connection between what is being said, what is in the document itself, and existing evidence, and it just is hard to see how meetings such as this are going to end up with as complete and accurate a record of evidence for decision-making as is necessary when such materials as plutonium are involved. So, any suggestions that anybody has --

MS. GALLOWAY: Ruth, let me try and explain that a little bit more fully.

This meeting is fairly narrow in scope.

What we're talking about here is having members of

the public provide explanations of their comments to NRC and have NRC explain our resolution of comments we've already received on the Standard Review Plan to those in attendance at this meeting.

So, it's fairly narrowly focused, and what we'll do is NRC will make their brief presentation, and then we'll give members of the public an opportunity to provide any other insights they want us to have.

So, it's a meeting between members of the public and NRC.

The other issues that you brought up are perfect topics and exactly what we're going to be covering when we have a public meeting in the Akin or Augusta area, close to the Savannah River site.

We're planning on doing that the end of June, the beginning of July.

That meeting will be an opportunity for NRC to explain fully the whole breadth of the licensing process associated with MOX, similar to the issues that you raised and the things that you're interested in knowing about.

We will work closely with you, and I know Mary Olson has expressed interest in such a meeting, as well. We will work closely with you to make sure that our agenda is full and covering the issues that are of interest to you.

We will make sure that the date of that is chosen

well in advance and that those who provided comments to us and have expressed interest in the MOX licensing process are aware of that in sufficient time such that they can plan on attending, but this meeting today is not going to cover those things per se.

If you do have specific questions beyond the Standard Review Plan, I would suggest that, in anticipation of this meeting, that you contact me or Drew Persinko, and we can answer questions for you in anticipation of this fuller meeting a few weeks down the road.

Does that help at all, Ruth?

MS. THOMAS: Well, it helps for me to know it, but I don't like it.

I want to go on record as saying there should be a meeting in Columbia and that the meetings in the Augusta/Akin area have ended up more like pep rallies, and the idea that each person's statement is of equal value sounds very democratic, but when you have people that have a vested interest, it doesn't end up that way, and also, I was of the understanding that the meetings that they have planned are not in relation to this particular document, that they're in relation to the application or further along the line.

What we're trying to do is to bring out the defects and the problems in the process early in the process

and for there to be effective participation, public participation, and that people that are scientists and independent researchers are heard and have actual input.

MS. GALLOWAY: Right.

Ruth, we'll be happy to discuss those things with you at some other time, but we really need to keep with this agenda today, and I'm going to turn the meeting back over to Drew so that we can start talking about each of the Standard Review Plan chapters.

When members of the public, yourself included, have specific comments on a specific chapter, you and everyone else who has an interest in being heard on that chapter will have an opportunity to do so here today.

MS. OLSON: I would like to take the opportunity to just ask a brief question before we launch. I'm not asking for an opening statement.

This is Mary Olson.

It was mentioned in the opening comments by NRC that there will be an environmental impact statement as part of the licensing process.

At the same time, we were informed that this was a generic document, not necessarily tied to licensing at the Savannah River site when we raised the question about why the meeting was in Rockville.

So, what I'm wondering about is any NEPA process

in relation to the revision of Part 72 and whether this meeting is considered part of a NEPA process in the formal sense.

MS. BRYCE: Part 70 was a rulemaking, and it did fall under the NEPA process.

They did an environmental assessment to analyze the impact, and I believe, at this point, they have concluded that there are no significant impacts from implementing Part 70.

This guidance, NUREG-1718, is considered guidance, and under the NRC's rules, it's categorically excluded from the NEPA process. So, we don't anything like an EA or an environmental impact statement when we prepare our own guidance.

When we license a facility, when DCS submits an application to us, then that's a licensing action, and that will be covered under the process, so we'll initiate a NEPA proceeding probably sometime close to when DCS is about to submit their application, and that means it will start later this fall, September/October timeframe, and we'll be initiating the whole entire scoping process, the whole she-bang.

MS. OLSON: Thank you.

MR. PERSINKO: Okay.

What I'd like to do, since we've had a couple of

opening remarks, I'd also like to see if there's any others that would like an opening remark.

Tom, do you have an opening remark?

MR. CLEMENTS: No, but I just have one question.

I'm Tom Clements with the Nuclear Control Institute.

Because NRC is a fee-based agency, I'm curious how the whole process for the licensing document and review is being funded.

Is from DOE?

MR. PERSINKO: No. It's a fee-based structure. We assess the fee to the applicant for work we've done on MOX-related work.

MR. CLEMENTS: So, fees are being assessed now?

MR. PERSINKO: Yes.

MS. GALLOWAY: Every staff hour charged to pre-licensing activity, including development of the SRP, is billed directly to DCS.

MR. PERSINKO: We have issued several invoices already, and we don't come cheap.

Okay.

With that, let's move on with the agenda.

The first item on the agenda is NRC overview and general comments. We'd like to go over the general comments first.

MS. BRYCE: As Drew said earlier, what we're going to do is we're going to -- the NRC staff are going to talk for a few minutes at the beginning of each technical area. We'll just kind of summarize the comments we received and briefly summarize our responses. We're not going to go into specific comment details. We can get into that when we start to discuss.

So, if you have an issue you want raised in a certain technical area, please don't hesitate to speak up, make yourself heard, and we'll respond to it in more specific detail then.

The other thing that I want to say is that NRC staff are going to be wandering in and out of here all day, because this is a long meeting and we all have lots of commitments. So, we'll try and make sure that people get introduced as they come in and out, for those of us that can't see who's coming and going.

And the last thing I want to say for the people in the room, as you fill out the e-mail sheet, if you're interested in receiving e-mail, please, please, please write clearly, because I tried to send out an e-mail announcement for this meeting, and I had a lot of messages bounce, and I think it's because I'm not quite getting the e-mails quite right, I can't always read people's N's and R's and whatnot.

Okay.

We had effectively 12 different commenters submit comments on the Standard Review Plan. That resulted in approximately 311 comments, give or take a few.

They're particular numerous in certain sections. For example, the ISA chapter, plant systems, management measures, just to name a few.

We also had a significant number of what I would call general comments, and those are comments that apply sort of across the board or aren't easily categorized into any one of the technical areas, and that's what I'd like to talk about first.

What I'd briefly like to say that they were binned two different ways.

Some of the commenters said that this Standard Review Plan is too strong, too prescriptive.

You're asking for too much material in the construction approval.

You're asking us to commit to industry standards that we don't think we should commit to or we don't think are appropriate.

There's not enough emphasis on the ISA and the relationship between the ISA and what we do.

We think that this facility should be treated equivalent to other uranium fuel fabrication facilities.

That was on the one hand.

On the other hand, we have commenters who are saying you need to be more prescriptive.

This is a plutonium facility. It represents an extremely large risk.

We don't think risk modeling is appropriate for a plutonium facility.

We don't think you should allow exemptions for a plutonium facility.

We think that you should delineate specific equipment for a plutonium facility.

So, here we are, the NRC. We had two different views represented, and the consensus of the NRC's technical staff at this point is we feel that we've pretty much hit it just about right.

Now, we're going to talk about it as we go through the day, and we are open to your suggestions, we are open to your comments.

We are not locked into any particular view, but I'm forewarning you that, at this point, we feel strongly that we have hit a good balance between what -- the necessary level of what you need to do and what you don't need to do, and let me just caveat that by saying the Standard Review Plan is guidance, it's guidance, it's not a requirement.

Okay.

Now, at this point, I'd kind of like to open the floor up to questions.

As Drew said, we're going to try and do it in an orderly fashion. We'll see how orderly we can be, and we're going to work backwards alphabetically.

MR. PERSINKO: According to my list, my alphabetically list, and who's on the bridge-line as well as here, the first person -- first group would be Nuclear Information and Resources, Mary Olson.

Do you have any specific comments, general comments you wish to discuss, Mary?

MS. GALLOWAY: Ruth, are you still there?

MS. THOMAS: Yes, I'm still here.

MS. GALLOWAY: Okay. Mary must have dropped off, then.

MR. PERSINKO: Mary? No? Okay.

The next would be the Nuclear Energy Institute.

Are there any specific comments you wish to discuss?

MR. FARRELL: I don't think so.

MR. PERSINKO: Next would be Nuclear Control Institute.

MR. CLEMENTS: I really don't have anything specific right now, except we do think that, as reflected in our comments, that the lessons learned from the BNFL

situation are quite important on the quality control issue as well as questions about the plants in France that have been raised.

MS. BRYCE: Actually we received several comments of that nature, and we're going to talk about that specifically under management measures later down the line.

MR. PERSINKO: Okay.

Next I show Environmentalists, Inc.

Ruth, do you have any specific general comments you'd like to talk about?

MS. THOMAS: One of the concerns that we have is that, in reviewing this document, it is not -- well, we found it very difficult to see what the connection was between operating experience and evidence and the conclusions and the text and the decisions that were being made.

The references are lost, and we went back and researched that and got copies of the CFR Part 70 that was so frequently mentioned, and even then it just did not take into -- is not apparent where consideration is taken into the accidents that have happened and the exposures and so forth, and it's not clear how laws are going to prevent these things from happening, and so -- and also concerned about the part that NEPA plays in this.

It does not seem to us that the requirements of

the National Environmental Policy Act have been met in the various stages of this decision, and we're not clear on the environmental impact statement that was prepared by the Department of Energy, what was the Nuclear Regulatory Commission's role in that. They did not review it.

Did they work with the Department of Energy, and what did the Nuclear Regulatory Commission think of the comments that came in?

So many of them were raising questions and critical, and they were not adequately addressed, in our opinion, by the Department of Energy.

What is the connection between these two documents, these two decision-making processes? How does it all fit together?

We're looking at the holistic viewpoint of this, and we see a piecemeal approach.

We seeing going on to having a guidance document for a fabricating of MOX fuel without having a guidance document for the operations and activities that have to go on before that and how this all relates to the Savannah River plant when you don't mention it and the waste that's at Savannah River.

I mean this whole thing -- I've seen it happen over the years, that the National Environmental Policy Act is not being carried out the way it should be, and that

means that all these inter-connected pieces are not fitting together, and there are gaps, and there's evidence that's being ignored, and we're very dissatisfied with the whole process.

MS. BRYCE: Ruth, can I just break in for just a second here, because I'm getting such a chain of subjects that we need to address that I just want to -- before we get too far behind what you're talking about, I kind of wanted -- we'll sort of give and take for a little bit. Is that all right?

MS. THOMAS: You're kind of fading out. You want to comment on what I said, you mean?

MS. BRYCE: So far.

MS. THOMAS: Yes, uh-huh.

MS. BRYCE: First, I just want to reiterate about the NEPA process that we will be following the NEPA process for the licensing action.

This guidance is just talking about how we're going to -- the NRC sort of is going to conduct the review, and because it's guidance, because it doesn't implement any new requirements, it's not subject to NEPA under the NRC's rules. We have categorically excluded it.

Now, you can anticipate that we're going to be scoping and that we are going to be conducting an environmental impact statement, we're going to be developing

one down the road. That's all coming.

So, we're not going to talk about that today in anymore detail.

So, I'm just going to set that aside. That's something that you can talk about later with Melanie and Drew.

MS. THOMAS: Well, I want to make it clear why I brought that up.

MS. BRYCE: I understand that you're concerned that comments aren't -- the public comments that are received in the NEPA process aren't always appropriately addressed by the sponsoring agency, and I understand that concern, and we'll acknowledge it, and we're aware of it, and we'll try, to the best of our abilities, to work with that problem to make sure it doesn't happen.

MS. THOMAS: Well, I want to state, too, that I have a problem with the scoping process as it's being used.

MS. GALLOWAY: Ruth, the subject of this meeting is not the environmental impact statement.

We will be happy to discuss that with you off-line, and that will be a key topic that we'll be happy to discuss with you in detail at the local public meeting, but given the full schedule we have today, we really need to stay on track and understand public comments on the safety aspects associated with the Standard Review Plan, and I'm

going to turn it back over to Drew so we can continue to see if there are any other comments from members of the public on the general issues which we've addressed first.

Who's next?

MR. PERSINKO: Next in line is Duke/Cogema/Stone & Webster.

MR. HASTINGS: Okay.

This is Peter Hastings.

I wanted to clarify a couple of our comments that Amy summarized to clarify the intent of those comments.

We did not intend to say -- and I hope we didn't say -- that we thought that the MOX facility was analogous to other uranium fuel cycle facilities.

We recognize that the plutonium content in our facility represents additional hazards that the other fuel cycle facilities quite simply don't have to deal with, primarily related to confinement of material, to avoid primarily occupational exposure but also public exposure.

We also would like to point out, though, that as different as they may be from uranium facilities, uranium fuel cycle facilities, they're even more different than reactors.

With the substantially increased source term of reactors, the substantial potential motive force for dispersion of materials, decay heat, high pressures,

etcetera, etcetera, etcetera, some of the reactor standards simply don't apply to the MOX facility.

We also believe that, in several cases, whereas the general content of the SRP, I agree, comes pretty close to the balance between those who want more and those who want less, there's still a lot of detail called for specific to the construction authorization request that we simply don't see as being germane to the safety assessment or the design bases for the purposes of authorizing construction.

We do acknowledge that the SRP is a guidance document, with a capital G, from which we as the applicant are free to deviate, but because much of the language seems to imply requirements, simply, again, because of the wording, and because in several places the SRP seems to imply a requirement to demonstrate why the recommended guidance isn't being used, as opposed to documenting why we selected the guidance that we did, we want to make sure that we're clear on the staff's intent.

We obviously want to make sure that the construction authorization request submittal complies with Part 70. At the same time, we want to make sure we're not being asked to provide significantly more detail than the rule requires for construction authorization.

We have several examples of where the level of detail called for the CAR itself, the construction

authorization request itself, seems to exceed the requirements of the rule, but I think we can just defer those to the chapter-by-chapter discussions.

MS. BRYCE: With that, I think most of what you talked about is more appropriate on a chapter-by-chapter basis instead of getting into as a general overview, and with that, we'll just kind of move on into the content of the Standard Review Plan

MR. PERSINKO: One other commenter is the Department of Energy.

MS. BRYCE: Oh, I'm so sorry.

MR. JAMIE JOHNSON: We would defer to the chapter-by-chapter.

MS. BRYCE: Okay.

Then the first thing that I'd like to talk about is the glossary, pretty much, and most of the specific comments that we got on the glossary came from DCS, and we've accepted most of your comments, as a matter of fact. We've tried to clarify the glossary by mimicking NUREG-1520 as much as possible.

So, we ended up eliminating some extra terminology and -- pretty much consistent with NUREG-1520, so we're following right along.

One thing that I do want to mention is the term "principle structures, systems, and components" -- we

inadvertently omitted "principle" several times throughout the Standard Review Plan, and that was our fault, and as a result, it made it look like we were calling all structures, systems, and components IROFS, and we never intended to do that.

We have to retain the term "principle" SSCs because it's used in 70.22(f) and 70.23(b) as part of the rule, but we don't think all SSCs are IROFS, and that term has been added to the glossary, and it should help clarify things.

MR. HASTINGS: Yeah, that clarifies things a lot. Thank you.

MR. PERSINKO: Okay.

Based on the first way we did this, let's try something slightly different.

Let's just ask -- because not everybody has comments on every section, so maybe we ought to try to see who has comments on the glossary.

Are there specific comments on the glossary?

MS. THOMAS: I have some comments on the glossary.

MR. PERSINKO: Okay.

MS. THOMAS: You'll be glad to know that I'm not going to go into all of them. I'll just use a few examples.

In the first place, how were these arrived at, the glossary terms? As I understand it, they didn't come from

the law, the Part 70.

MS. BRYCE: Actually, Ruth, we ended up making a change to the glossary in response to some of the comments we received, and now they directly reference the rule. So, they say see Part 70, the definitions in Part 70.

So, it refers directly back to the rule, and we made that change because we realized that it was confusing. We didn't want to inadvertently establish two definitions for the same term.

MR. PERSINKO: That was comments we also received on 1520.

So, when we revised 1520, we didn't duplicate the definitions of words in 1520 that were in the rule, but 1520 does have definitions that were developed separate, that are not in the rule, in 1520.

MS. THOMAS: In other words, the one that I looked up at the law school is not up to date? Is that what you mean?

Because I know -- like you have 70.61 and then references are made to other parts -- let's see -- 62 and 53 and so forth, and they weren't in what we got from the law school.

So, there was some change in between?

MR. PERSINKO: Well I'm not exactly sure what -- you probably are referring to the proposed rule, because

70.61 is a section that is now part of subpart (h). It didn't exist before the proposal.

So, I'm assuming you've looked at the proposed rule which was issued last July.

Now, there were -- you know, that rule, like I said, has -- is -- the next version of that rule is now going to the Commission, so I can't talk about the details of what's in the new rule until the Commission judges it and makes their determination.

So, I am prohibited to talk about the final rule at this point, but I can talk about the proposed rule.

The proposed rule that's out there, what's out on the web for public comment last July, does have definitions, and you know, the definitions were what we thought were, I guess, were good definitions.

I mean there were terms in there like "defense-in-depth," what the Commission has ruled on. There were other terms about double-contingency, which was an accepted definition by the American Nuclear Society. So, felt comfortable with a lot of those definitions.

Now, we did receive comments on them, and I can't say the results of those comments, though.

MS. GALLOWAY: Ruth, are you talking about definitions you got out of a rule, or are you talking about the glossary definitions that you got out of the version of

the SRP that is on the web?

MS. THOMAS: Well, you see, one of the problems is that our organization -- at least I'm not on the web. So, I'm dependent on hard copies, and I'm thinking in terms of -- we're an educational organization, and to -- for somebody in the public to understand this -- and I realize that this is being written primarily for the applicant, but still, if the public is to understand this, it seems like -- well, even people that have been involved a long time are --

MR. PERSINKO: One thing I'd like to say on that, Ruth, is that NUREG-1718 is primarily written to guide the staff's review. That's the primary receiver of the document.

Now, it helps other stakeholders to see what the staff is doing, but it's written with the staff in mind.

MS. GALLOWAY: Ruth, the changes that Amy was talking about, you wouldn't have seen yet, because they will be part of the next Standard Review Plan we issue in June.

So, if what you're asking is that you haven't seen these changes put in place, that would be correct, because they're still under NRC internal review for issuance the end of June.

MS. THOMAS: I see.

MS. GALLOWAY: Okay?

MS. THOMAS: Okay. Thank you.

MR. PERSINKO: Okay.

Are there any other comments on the glossary from any other participants?

[No response.]

MR. PERSINKO: If not, we'll move on to the next section.

Amy?

MS. BRYCE: Okay.

I'd like to talk -- I think I'm going to combine the introduction and general information together while I talk about this.

Probably the most significant comment that we had on the introduction -- and this applies a little bit to the entire document -- is how we originally addressed the construction approval and the license, and this is, in a way, a semantic thing, and in a way, it's not.

We've made a change to the Standard Review Plan to make it clear that the construction approval is part of the entire licensing process, and as such, it's part of the license application.

Where we were previously using in the draft -- first draft, in NUREG-1718, the term "application for construction approval," that's been scrubbed, it's gone, and now it's "construction approval," and we're doing a review, "construction approval review," and also "a license to

possess and use special nuclear material," and that seems like a small distinction, but it kind of rolls through the entire Standard Review Plan.

Other than that, the bulk of the comments came in from DCS, and we pretty agreed with a lot of the changes that you made -- or changes that you recommended. So, we made some changes.

One specific thing that we did do for the Department of Energy was that we clarified the -- that this facility is a new facility and that we don't expect to apply this to other plutonium facilities and that we don't expect to be doing some awkward things under this like -- I'm trying to think -- new process lines, necessarily. We clarified that.

MR. HASTINGS: I think that change is going to be helpful in terms of clarification, and let me take advantage of that statement to point out a couple of other things.

I may slip into some acronyms. I'm going to try not to, but they're hard to shake.

Just to make sure that we're all talking the same language, you may hear me use the acronym CAR, C-A-R. Because our documentation for the first step of the licensing process predated the SRP, this acronym came into use. It's construction authorization request. It's analogous to what you guys in the previous draft had called

application for construction approval. So, I think that's pretty straightforward.

We also talk about the safety assessment summary, which is the version -- the summary of the safety assessment of the design bases that accompanies the construction authorization request that's analogous to the ISA summary that accompanies but is not part of the license application. So, it's, again, a very similar construct.

If I use the term "LA," that's license application. That refers specifically to the second submittal, the possession and use application, and we can clean that up as necessary, but if I slip into acronym-speak, then that's what I'm referring to.

MS. BRYCE: I just want to clarify -- and correct me if I'm wrong here -- that when you're turning in your CAR -- I always call it a construction approval. I think construction authorization is a hold-over from reactors, so I'm trying to be different.

But when you turn in your CAR we consider that part of the license application, that you've just turned in one section of the license application.

So, it's not necessarily a separate document. It's actually sort of globally enclosed under that entire umbrella, just so that we have that clear up front.

MR. PERSINKO: It's the first installment of the

application, basically.

MR. CLEMENTS: Can I ask a question? You just mentioned a new process line, and this may be a little bit off subject, but in the event, in general, that the Department of Energy were to request the addition of any fabrication line in the facility for a non-licensed reactor like Duke -- and here I mean the fast flux test facility -- would any new lines that DOE would request -- would they also be covered under NRC guidance, or could there be part of this facility that is not covered by this SRP and the subsequent EIS process in the license?

MS. BRYCE: This Standard Review Plan is geared entirely towards the DCS facility.

So, when you start talking about other things like fast flux facilities, I would not want to blanketly transfer that.

We would have to go back and do a re-review and decide how we wanted to approach it, and when we put this draft out for publication, we're going to try and make clear -- although this has not been formalized yet -- that that is the case. This is a very facility-specific document.

So, the answer, effectively, is no, it's got very limited applicability and that, if DOE would like to license another facility or if they are legislatively obligated to license another facility, then we would start a new --

either figure out where we could do it or start a new one, but at this point, no.

MS. MINERD: Could you all please speak a little louder?

MS. BRYCE: Is that Mary Olson?

MS. MINERD: No, this is Leslie.

MR. PERSINKO: Let me say something about design basis, and then we can get into it, I think, more in the ISA chapter.

The regulations for NRC, as I said, to approve construction require approval of the SER to support the design bases, the quality assurance plan, and the EIS, are the three main items, but there's a few others. Those are the three main items that are in Part 70.

They're in the existing Part 70. I mean that was not part of the new rulemaking either.

Design bases -- I mean a letter was sent from NRC to DCS talking about construction approval, and in there it described some -- I tried to describe what the NRC would be using for approval of construction.

In there, there was a definition of design bases that was used.

So, it provided the definition of design bases, and it also added some discussion at the end, and one of the items was -- I think it said hazard analysis appropriate for

the level of design.

You have to keep in mind the design bases is going -- the level of information that's needed to be included in the design bases needs to be sufficient for the staff to reach a conclusion that, if the facility is constructed, designed and constructed per the design bases, it will meet the performance requirements in the new Part 70. That's the global goal that has to be achieved.

Now, to get there, you know, it's envisioned that a hazard analysis would be necessary and, possibly, to some level anyway, some types of accident analyses, some types of maybe bounding accident analyses, and we've had internal discussion on this, as well.

The letter, you know, said a hazard analysis appropriate for the level of design.

So, a hazard analysis definitely and maybe some accident analyses, as well, depending on whether it's needed to reach the global conclusion that the performance requirements will be met later.

Now, you know, the terms like accident analysis and hazard analysis -- you know, I'm thinking along the lines as a DOE standard on this, which talks about accident analysis -- it's a 3009 standard, and I'm thinking along those lines when I use those terms, and so, anyway, I'm trying to, at this point, just set the stage of the level of

detail for construction approval.

Along with that, not too long ago perhaps, the NRC issued a reg guide on the subject of design basis, and it's out for public comment right now.

Now, let me point out very clearly here now that this is written by the reactor -- NRR -- the nuclear reactor regulation side.

Now, some of it is transferrable, probably, some of it is not, but at least it's a guidance -- it's a reg guide that's out for comment on the street that has to do on the subject of design bases.

But I just want to set, at this stage, the global idea of what's necessary for construction.

Now, we can get into more on this in the ISA chapter, but since it was raised at this time, I just sort of wanted to set a stage a bit.

MR. HASTINGS: I think DCS's understanding of that, at least conceptually, is in accord with yours. That's why we think it's important to make sure that the SRP doesn't leave one with the impression that more than what you just stated is, in fact, required, and our comments are intended to focus on those areas where we think the SRP goes a little bit beyond the requirements, as you just indicated, because we agree that's the appropriate definition.

MR. PERSINKO: Okay. That was Chapter 1.

Are there any other comments on the up-front, general information that anybody wants to speak about?

MS. OLSON: This is Mary Olson.

MS. BRYCE: Go ahead.

MS. OLSON: This is sort of a structural component overview.

I mean we can get into it with the quality assurance chapter, but NIRS definitely supports the concerns raised by IEER and NCI about the need for an additional section on quality assurance of the product, not only the construction of the facility.

I'm raising that since we're talking about sort of general overview of the document.

This would be a section that we think needs to be added.

MS. BRYCE: We'll just go ahead and address that subject right now, then.

MR. SMITH: Wilkins Smith. I'm in the Special Projects Branch and worked on the comments on the management issues, and several of the comments were related to -- in the quality assurance area, mentioned that a requirement for a product QA program should be in there.

The particular requirements in this SRP are those for the Part 70 safety requirements. They address the requirements for QA that are needed under the management

measures section.

The requirements for a product QA program would be applicable under the production requirements of the license -- reactor license, actually utilizing the product, and that would be handled by the NRC NRR activities.

We have been coordinating and communicating with NMSS on the Part 70 and on other issues with NRR, and those issues would be addressed in the future.

MR. PERSINKO: Okay.

MS. OLSON: In a similar sort of document or in what manner do you think that addressing might take?

MR. SMITH: The actual product from the MOX facility would go to an operating power reactor that has an NRC license to operate.

The product would be supplied as a normal part -- or as a regular part of supply to that facility. Therefore, the 10 CFR 50, Appendix B, requirements for a QA program would apply.

MS. OLSON: But you don't anticipate any special guidance or other document in relation to MOX fuel compared to non-MOX fuel.

MS. GALLOWAY: We don't know an answer to that at this point, Mary.

We'll have to touch base with NRR and find out what their plans are further down the line in this area, and

we can take an action to get back to you.

MS. OLSON: I'd appreciate that, since obviously I've missed so many of the other balls that are on the court. Having a specific concern about this one, I'd like to know where and when it's coming back up.

MS. GALLOWAY: You know, just to summarize, our office, in regulating the facility, the construction and design of the facility, is interested in the safe operation of the facility and the safe development, production of the fuel. NRR is interested in the safe operation of that fuel in the reactor.

To the extent that quality issues go beyond the safe production of the fuel and the safe operation of the fuel, that is DCS's issue.

In other words, if quality issues are going to cause them economic hardship because the fuel is not of the quality they would have liked it to have been, but if it meets all NRC safety requirements, we remove ourselves from that. That's an economic production issue that they'll have to deal with once the fuel is in the reactor.

So, that's just putting kind of the safety focus where NRC is coming from, whether it's the facility or the use of the fuel in the reactors.

MS. OLSON: Right. It's the safety concern of putting unique fuel into reactors, and I understand NRR has

a role, and I'm glad to be told that that's where to take these concerns.

I just was inquiring about whether there would, indeed, be a revision of that process given that this is unique and new fuel that's unprecedented.

MS. GALLOWAY: We are sure that they are going to be looking at that in a great level of detail, but what we don't know and what we'll get back to you on is what document they're going to be using to guide their review.

MS. OLSON: Thank you.

MS. GALLOWAY: Sure.

MS. BRYCE: We're going to talk a little bit about Chapter 1.

All the comments we received on Chapter 1 were on section 1.2, and that mainly has to do with institutional information that the applicant is supposed to provide to the NRC, and there are two particular things that I'd like to address here.

I'll lead off by saying in general that most of the clarification and terminology changes that were recommended to us we accepted.

In particular, we will defer, in general, to the Department of Energy or another agency's -- I never can remember the acronym -- FOCI determination, and the gentleman who specializes in the protection of classified

matter will speak to that in more detail.

We're not removing the requirement from the Standard Review Plan. Instead, you'll have to demonstrate to us that you've obtained that determination from DOE, and there is a mechanism for you guys to do that.

The second thing is -- has to do with more specific detail about what we've asked for in terms of the construction approval, and in this case, I would agree with DCS that the rule does not necessarily require that you submit this information with the construction approval.

However, in this case, we're recommending for our information, since this is such general -- so general in nature -- it's like the name of the facility, who you are -- that -- it's so fundamental to our review that we would like to see it with your construction approval.

And with that, I'll open the floor for any comments.

MR. PERSINKO: Anybody on the bridge-line?

[No response.]

MR. PERSINKO: Okay.

I guess we'll move on.

The next chapter is organization and administration.

MS. BRYCE: The next thing we're going to talk about, then, is the protection of classified matter.

This is similar in nature to the comments that we received on Chapter 1, and I primarily want to address when we received -- for the people that are on the bridge-line, the DCS will be submitting a plan to us on how they're going to protect classified matter, and it has to do with national security information or restricted data, security data, so to speak, and we've recommended to DCS that they submit their plan with the construction approval.

We have somewhat modified this.

We're recommending that you submit it prior to the point when you think you're going to be handling classified material that the NRC would have jurisdiction to.

So, when you submit your construction approval, if you think you're at the design point where we would have jurisdiction, that when you should turn in the plan.

MR. HASTINGS: Okay. That makes sense.

MS. BRYCE: Any comments? Anyone else?

MS. OLSON: Yes, I have a comment. This is Mary.

MS. BRYCE: Sure.

MS. OLSON: I know this is slightly off topic, but we've been registering this comment with the Department of Energy for quite some time, and I want to register it to you here that we're very frustrated about the lack of access to information about Cogema's operating records and environmental impacts and things like that. We feel that

there is information that's currently classified which should be in the public realm.

So, we support the national security concerns, but we would very much like to see a freer flow of information about the history of operations of the similar facility that's in France.

MS. BRYCE: The NRC would not be able to require DCS to tell us about the operations in Europe, but in terms of their own operations, especially in terms of, for example, effluent releases, that will all be public, a matter of the public record, and when they submit their environmental report, that will all be a matter of the public record.

So, I think that, with the exception of when you get to very specific classified material, that most of it should be publicly available.

MS. OLSON: Thank you.

MS. THOMAS: Ruth Thomas. I had a question in relation to past operations that involve plutonium that were in this country, Nuclear Fuel Services in New York State, and evidence was brought out at NRC's proceedings in the 1970s. Where is that being factored into the -- this issue and other issues that are covered by the NUREG-1718?

MS. BRYCE: I'm sorry. I'm not sure I understand the question.

MR. TIM JOHNSON: Are you asking how are the experiences at West Valley factored into the Standard Review Plan for the MOX fuel fab facility?

MS. THOMAS: Well, the evidence -- in other words, that was an experience that involved plutonium and the problems they had, and has that, in any of the various issues -- for example, fire protection or criticality or any of the other issues, environmental protection -- are those experiences and that evidence --

MR. TIM JOHNSON: Ruth, I think, in a general sense, it is factored in, recognizing that they are two very different facilities.

West Valley was for reprocessing fuel. This is making fuel with very different kinds of materials. But I think that the general considerations of nuclear criticality is certainly factored in here.

Any kind of environmental effluent release aspects are going to be considered here.

So, in general, I think the experiences are considered here, but we do recognize that they are two very different facilities with very different system designs.

MS. THOMAS: So, certain areas would be more affected than others, certain topics.

MR. TIM JOHNSON: Right.

MS. THOMAS: And would that be -- did that affect

like the Part 70 before it ever got to this particular document? Was that where it was considered when they were making the rulemaking for Part 70?

MR. PERSINKO: Not per se. The reason the Part 70 rulemaking was initiated had to do with near-criticality events that occurred at certain domestic non-plutonium facilities, fuel cycle facilities, one in particular, in the early '90s, and that was really the impetus for the Part 70 rulemaking.

MS. THOMAS: I see. Thank you.

MS. BRYCE: Okay.

Next we'd like to talk a little bit about safeguards and emergency protection, which might sound a little disconnected with the same person talking about both of them, and that's Rocio Castaneira.

MS. CASTANEIRA: For safeguards, we received -- we basically received -- we received two comments on the safeguards chapter, and it basically discussed the construction approval, and we've been talking about that already this morning.

So, the application for construction approval should include design basis information on safeguards, systems, structures, and components such that -- such as the protection against the design basis threat and protection -- or prompt detection of abrupt loss of SNM, and that's really

the only comment we received for safeguards.

Now, for emergency management, we received several comments.

One discussed training, indicated that the training specified is not required by 70.22(i)(3)(X), but training is required for workers on how to respond to an emergency, and special instructions and orientation tours also need to be provided to other responding emergency personnel that are not plant employees.

The review by off-site organizations of changes made to the emergency plan -- a change has been made to the SRP that only those changes that decrease the effectiveness of the plan needs to be submitted to off-site response organizations.

Another comment discussed -- indicated that the chapter did not allow cross-referencing.

The emergency plan needs to be a self-contained document. It may ask for information that has been submitted elsewhere in the application, but because it does need to be a self-contained document, it does not allow cross-referencing.

Another comment was that the applicant should not be responsible for determining if DOE requirements contradict NRC requirements.

The applicant will be operating under NRC

regulatory oversight on DOE-owned property, and the applicant needs to be sure that emergency procedures to be followed, regardless of whose jurisdiction it falls under, whether it be NRC or DOE, does not contradict or conflict with the other agency's regulations or orders.

Another comment was -- felt that the emergency plan should include a description of each accident identified in the ISA summary. We have amended the SRP to include ISA summary.

And a last comment was, again, discussed the construction approval.

As I said earlier, the application for construction approval should include design basis information on safeguards systems, structures, systems, and -- or components.

And that's basically all the comments that were received for emergency management and safeguards.

Does anybody have any questions?

MR. HASTINGS: I have a couple of comments, clarifications, and one question.

The comment on the obligation of DCS to determine whether DOE requirements contradict NRC requirements -- clearly, in order to comply with NRC requirements, we need to understand the extent to which DOE and NRC emergency management measures are properly integrated.

What we don't feel is appropriate is for us to document the determination in our license application of, point by point, how one compares with the other.

We feel the obligation is to comply with the NRC requirements.

One of the many things we have to do in order to accomplish that obligation is to understand the integration and interrelation of the NRC-based and the DOE-based emergency management systems, and they will be very closely integrated by necessity.

In fact -- and I am confident I speak for DOE in this regard, as well -- even in the absence of a regulatory requirement, we would clearly be obligated, as a cognizant owner and operator of the facility, to integrate the emergency management measures between the MOX facility and the rest of the DOE Savannah River complex because of our obligation to protect our employees.

So, I think it's a semantic issue of clarifying the extent to which the staff expects to see in the license application that comparison of DOE and NRC requirements.

The second question relates also to emergency plan -- emergency management measures, and again, I think it's probably one of clarification, but since, as the SRP states, the applicant isn't required to submit an emergency plan or evaluation with the construction authorization, construction

approval request, we're not sure what about the design basis the reviewer is going to review within Chapter 14, because the emergency plan won't be submitted, that evaluation won't be submitted.

A cursory review of the extent to which the design basis seems to support what might be the logical construct of an emergency plan might make sense, but that seems like an awfully fuzzy acceptance criteria, and so, I would submit that for consideration.

It might be a little tough to describe those review criteria.

MR. CLEMENTS: Just one this point between DOE and NRC, will the NRC require that this be treated as a stand-alone facility and that the operators of the facility will have to demonstrate physical protection, or how integrated into the Savannah River physical protection mechanism will this be, and what kind of testing will there be of the facility that it can fend off a design basis threat, apart from what DOE security is?

MS. GALLOWAY: Maybe the best organization to answer that is DCS.

They could give you some idea of what they plan as far as physical protection, because without seeing the application, I don't know that we know for sure exactly what you plan in that regard.

MR. HASTINGS: Well, I don't have a lot of the details, and our security lead isn't here, but in very summary detail, we are both contractually and statutorily obligated to comply with both NRC and DOE requirements for physical security.

So, our obligation is to develop an NRC-approved physical security program and physical security design that also integrates with and complies with DOE's security requirements from a contractual basis.

MR. CLEMENTS: So, there could be the situation where you use part of the DOE security force, for example, that would be integrated into your plan for the MOX plant.

MR. HASTINGS: It's conceivable, certainly.

MS. GALLOWAY: If they would propose that, we would evaluate that on the merits of whether or not it meets NRC requirements.

MR. HASTINGS: And if there were a particular element of the DOE infrastructure that didn't meet NRC requirements for some reason -- we don't believe that's the case, but if that were the case, we would be obligated to augment it or replace it or something appropriate in order to meet the NRC requirements.

MR. JAMIE JOHNSON: Some of the integration issues are being worked out right now.

DCS has taken the lead to work with the people at

Savannah River, as we speak, you know, recognizing that we're an NRC-regulated facility, but DOE, at Savannah River -- we have to be cognizant of some of these interfaces, and physical security is one that we're very sensitive to because just of the nature of what we do.

So, we have contractually -- as Peter said, are holding them to complying with the NRC, to get the NRC license, but in addition, to make sure DOE are satisfied.

MR. HASTINGS: And the same is true of emergency planning, as well.

MR. CLEMENTS: So, there could be -- on the physical security issue, there could be some DOE response testing that they could require apart from what the NRC may require.

MR. FORTIER: What our intention is, that we will comply with the NRC requirements, and we will also comply with the DOE requirements.

We won't necessarily bound the two together, so we develop new scenarios that are much more complex, but we need to address each by themselves, and where it's convenient, because they interact, where it's appropriate, we will do the right thing in that case, but we'll be looking at the two, complying with the two appropriately.

MR. PERSINKO: And the NRC would look at where those two meet and to assure that our security requirements

are met, and if there's any testing or whatever, that ours will still be met, so if there's any interface, where the interfaces are between the two organizations.

MS. THOMAS: This is Ruth.

We're very interested in this particular discussion between who has the authority and whether NRC is -- has the oversight at the Savannah River site, and also, how does this work in relation to the conditions at the Savannah River site in the fact that there's so many sites, so many places where they have contamination and they have radioactive materials and so forth?

Is this something that's covered by interaction between the Department of Energy and the Nuclear Regulatory Commission, or in this document, are they not considering that it's going to be at the Savannah River but considering it more as a generic.

MR. PERSINKO: Ruth, this is Drew Persinko. Let me see if I can try to answer that a bit, and then Rocio can help me out where I need it.

First of all, I just want to be clear that the NRC does not regulate the Savannah River site. The NRC is going to be licensing and overseeing the MOX fuel fabrication facility, and that's what our focus is going to be on.

To the extent that it relies on Savannah River, say, security or Savannah River systems, we will look at

that to assure that the MOX fuel fabrication facility does, in fact, meet NRC regulations, but we won't be looking at other DOE facilities on-site.

MS. THOMAS: Thank you.

MS. BRYCE: Any other comments?

MR. PERSINKO: You made a comment about NRC regs, you know, the statement about where the differences between NRC and DOE exist.

We'll go back and take a look at that, because what we're interested in is not so much the effect where we don't meet DOE regs.

Our regs need to be met pretty much stand-alone, and so, let us take a look at that.

MS. BRYCE: I'd like to back up. We inadvertently skipped over organization and administration, and I'd just like to briefly summarize the comments about this.

We would expect DCS to submit information about their organization and administration for the construction approval review.

We think this is pretty fundamental to your design basis and how you're going to implement your construction of the principle SSCs.

We don't think that you can safely assess your design basis without having some sort of organization and administration in place, and therefore, we are recommending

that you submit this information with the construction approval.

In addition to that, I'd like to say that we intended the HS&E management function to mainly address design considerations as you complete design and begin to construct the facility.

We never intended it to address OSHA requirements, so to speak, and we've made clarifications to that effect within that section, and with that, I'd like to open the floor to comments.

MR. HASTINGS: I'm curious -- and this is just a clarification -- what the scope of activities during construction the NRC has a concern over in terms of health and safety, because there's no nuclear material on-site during the vast majority of construction, except for some source and radiography material which we'll discuss separately. So, I'm not sure what the scope of regulation is during construction, as regards personnel safety.

MS. BRYCE: Maybe it would be better if we used a different title or term for this person.

We were thinking more in terms of a person who is responsible for ensuring that the design basis is implemented throughout the design. So, it's a person who's cognizant of the design basis as it relates to health and safety and accidents.

MR. HASTINGS: Okay. That's a helpful clarification, and I would recommend, if only because of the connotation, that you revisit the terminology.

MS. BRYCE: That's not a problem.

MR. PERSINKO: Anybody else have any comments on that, organization and administration?

[No response.]

MR. PERSINKO: Okay.

We're ahead of schedule. Let's keep going.

Believe it or not, we're a little bit ahead of schedule, but we have some pretty heavy topics in the afternoon which may slow us down, so we're going to keep going.

The next topic to be discussed was chemical safety, radiation safety, and environmental protection.

The NRC reviewer on radiation safety is here. So, let's talk about that now.

In the meantime, we'll try to get our reviewers on chem safety and environmental -- on chem safety.

MS. BRYCE: I think I'll just preface this by stating that we grouped radiation safety, chemical safety, and environmental protection together mainly because we tend to think of them as sort of combined.

They all sort of address potential worker situations and public situations, and what I'd like to do is

hold a discussion on what we expect in the construction approval versus the entire license application for your license to possess and use SNM until the end of the discussion, until after we've gone through all three, and before that, we'll just talk about the more specific comments that turn up in each technical area, and we'll start with the radiation safety comments.

MR. STRUCKMEYER: My name is Richard Struckmeyer, with the Division of Fuel Cycle Safety and Safeguards. I'm covering the area of radiation protection.

We received 11 comments in the radiation protection area, five of them from DCS and six from NEI.

Four of the five DCS comments, numbers 123 through 126, were related to a more general comment that DCS made, comment number 1, which was not a radiation protection comment but indicated that the staff has expanded the scope of information to be reviewed by including criteria unrelated to those required by the regulations.

In response to those comments, we took the position that the material the licensee submits for construction approval is part of the license application and that the level of technical detail is appropriate and supports the safety assessment.

I don't see a need to go through each of those comments individually, because that would be the same

statement in each case.

On comment 122, which had to do with the SRP, referring to the applicant's design for construction and operation, the comment was to change this to "commitments for operation of the facility are adequate."

This also referred back to comment number 1 but was somewhat different in the sense that, at least from the radiation safety standpoint, the SRP chapter is concerned specifically with the design criteria, and changing that chapter would, in our opinion, contradict that purpose.

Shall I go on to the NEI comments?

MS. BRYCE: Sure.

MR. STRUCKMEYER: As I said, six of the comments were from NEI.

We agreed in part with one, which was number 274, concerning qualification standards and indicated that a minor revision would be made to section 9.2.4.2.3 of the SRP in which we would add a statement that alternative qualifications with justification can be submitted by the applicant for the radiation safety officer and the radiation safety specialist, which would be consistent with NUREG-1520, section 4.4.3.

As for the other comments of NEI, we disagreed with the remainder of them, and they're each quite different and, in some cases, some judgement had to be made as to

exactly what the comment referred to in terms of the section of the chapter in the SRP.

277 had to do with the ALARA committee. It's our position that a separate ALARA committee or subcommittee is appropriate, and that committee normally would report to the site safety committee.

We think that if, in the case of most larger licensees, to have one single safety committee trying to do all types of work would be overwhelming and it's appropriate to have a subcommittee to report to the site safety committee for those issues.

280 had to do with the frequency of air sampling. Our comment here -- our response here is consistent with NUREG-1520, section 4.4.7.3. I can go into more detail if anyone has any questions.

282 had to do with the QA program.

That was one of the more confusing ones to respond to, since there is a couple of different aspects to quality assurance, one being what the licensee does in terms of assuring the quality of a sampling program or a radiation monitoring program within the facility itself and the other having to do with the assurance of quality of a contractor doing such work.

Do you think I should go into the details or leave it for the questions?

Okay.

At any rate, I addressed both of those possible interpretations, and we'll see if there's any questions on those.

Number 300 had to do with radiological consequences of accidents.

The short answer is that these are required by the -- Parts 70.61(b) and 70.63(c) of the proposed rule.

And the final one, number 301, having to do with ALARA philosophy, again short answer, numerical goals are recommended but they're not required.

That concludes my section, and I'll be happy to answer any questions.

MS. THOMAS: Ruth again, asking a question about -- are the workers involved in any way in the safety program as far as making recommendations or --

MR. STRUCKMEYER: Yeah, I understand where you're going.

The ALARA program actually has that as one of its aspects.

You're familiar with the ALARA terminology, as low as reasonably achievable?

MS. THOMAS: Right.

MR. STRUCKMEYER: Okay.

Yeah, that's -- if you look at the regulatory

guides that were developed for the reactor program, which have been adopted virtually throughout the industry, those do discuss the need for employee participation in setting goals and in making sure that things are done in an efficient manner and with the least dose to workers as possible.

MS. THOMAS: Now, would this apply to workers -- temporary workers or those that are brought in when they need extra people?

MR. STRUCKMEYER: Yes, it would.

MS. THOMAS: So, whether they were in a union or not, non-union or union, they would still fall under the same --

MR. STRUCKMEYER: That's correct.

MS. THOMAS: Thank you.

MR. MICHELSEN: We had a general comment, number 4, which this is a specific example of in Chapter 9.

There's two parts of Chapter 9, 9.1, which deals with design features, and then 9.2, which has to do with the radiation protection program.

As far as what belongs where in the license application versus the ISA summary, we kind of feel that 9.1, which deals with design features, is really related to the design description of the plant and how we intend to operate it, and it's more related to what is in the rule, as

a matter of fact, for, you know, process descriptions, site descriptions, and we feel that 9.2, of course, is appropriate for the license application.

Just wanted to bring this up as an example of that type of a concern we had.

MR. STRUCKMEYER: I'm not sure I can provide a response to that, but I understand what you're saying.

MS. BRYCE: Our general feeling is that the design information should be addressed as part of the construction approval, and because of that, it would be part of the license application, and because a lot of this ties into Part 70 for design issues, as well as Part 20, we also feel that it's going to end up in the license application rather than the ISA.

That's our main reasoning why.

MR. MICHELSEN: This was one of the real reasons that the ISA summary became separate from the license application.

MS. BRYCE: Right.

MR. PERSINKO: As far as Part 70 goes, I mean there's the ISA summary.

Now, Part 20 is a separate -- separate from Part 70. I mean they're related, but one does not encompass the other. Part 70 is a risk-related rule; Part 20 is more of a dose-related rule.

MS. BRYCE: And it's broken out to a certain degree in the chapter that covers radiation design issues, because there's a specific section that addresses the ISA, and the part that is specifically geared towards the ISA, that part would go in the ISA summary.

The stuff that comes before that, which addresses things like your design in relationship to your source terms, that would be part of the license application, principally the construction approval.

MR. MICHELSEN: That goes to the fundamental comment that we made as comment 4, and that is that, if we are required to describe design basis information in the CAR or the LA -- and we'll treat those as essentially the same document -- and then also provide that same design information in the ISA summary, the SA summary accompanying the CAR, we've created unnecessarily and, frankly, dangerously redundant information.

Anytime that information is created in two separate documents, the opportunity to describe them differently exists, and we very strongly feel that the inclusion of design information in the ISA summary, with appropriate pointers from the LA where needed, is what makes a lot more sense.

MS. BRYCE: Here's what I would recommend, and

Drew can see if he objects to this or not, because this is just me speaking off the top of my head.

I think that you should have some place within the license application that you describe your design information to a certain level of detail, and the appropriate place for that might be either section 1.3 or radiation safety or chemical safety or wherever, but you're going to have to address it to a certain level of detail, and then in the ISA summary, you can get into the nitty-gritty of what's where in terms of we're going to put this monitoring station in XYZ location, or maybe that should be in the license application, but that's where the cross-referencing would be.

You're going to need to have up to a certain level in the license application.

MR. PERSINKO: Yeah, you will. The ISA summary from Part 70 is geared more along the lines to be tied to IROFS, and it tries to be as specific as it can in the rule language, but it's linked to the IROFS.

You know, the application usually has a little more programmatic kind of issues in it, a little broader-scope things, and in fact, that's going to be one of the topics of discussion at the June 8th meeting regarding management measures, because some parts of the management measures need to be in the application and some parts of the

management measures need to be in the ISA summary.

MR. HASTINGS: I agree, and I think it's almost -- not quite, but it's almost a semantic argument, because the discussion that we're going to document will be the same no matter which document it's in, and it's just a matter of picking which document each appropriate piece of discussion goes into and avoiding redundancy between the two, again to avoid conflicting discussions.

MR. PERSINKO: Keep in mind also, the IROFS that we've been referring to are a Part 70 term. I mean that's tied to the ISA summary and the ISA.

The Part 20 items you rely on for ALARA -- that's a Part 20 issue. It's not an IROF. That's used in Part 70. There have been significant discussion on the relationship of Part 20 to Part 70 in our public meetings on the Part 70 rule.

MR. MICHELSEN: I guess one of the concerns, if I could phrase it a little differently, that -- we understand, you know, what's in the license application, our license conditions, and we understand that we can commit to IROFS -- well, we commit in the license application to maintain IROFS to a certain level.

What we feel would be awkward is to have commitments in the license application that deal with things that are not appropriate license conditions.

There will be descriptions of the radiation protection design features, in particular. A lot may not be IROFS, and it seems inappropriate they'd be license conditions in that case, except for the programmatic stuff.

MR. PERSINKO: I think that might work, but it's the IROFS that are in the ISA summary, and the ISA summary is the document that allows -- according to the new Part 70, is where you get your flexibility according to the change process.

The other items not referred to IROFS -- I mean that would be along the same lines as normal applications for fuel cycle facilities today.

MS. BRYCE: I think I would add to that a little bit.

When you turn in your material for the construction approval, I don't think we'd necessarily expect that to stay static when you turn in the license application.

So, what we see with the construction approval would be almost more on the order of design principles, something to the effect of -- oh, gosh, what's a radiation safety example? Like we're going to design for ALARA. You're making that commitment as part of your design basis, so to speak.

That's going to go in the license application, and

then when you resubmit the full entire license application for your license to possess and use special nuclear material, then you would be making more specific commitments either in the license application or in the IROFS, and that sort of supersedes what you originally said, and the NRC would then be in a position to compare and contrast to make sure that what you ended up with is consistent.

MR. HASTINGS: Part of the reason that we want to get clarification and agreement on the split between the LA and the ISA summary is so that we have the appropriate measure of change control for non-IROFS as we have for IROFS.

If we were to commit in the license application to X-inch-thick shielding for whatever reason but that's not IROFS, it's strictly there for Part 20 compliance, it obviously doesn't make a lot of sense for us to have to come to the NRC for pre-approval to change that value.

So, we're looking for the right level of detail consistent with or at least not conflicting with the level of detail where we're going to be controlling IROFS.

MS. BRYCE: I think what makes this particularly difficult to think about is that you effectively end up with three things.

You end up with the construction approval, which is kind of its own little unique requirement for plutonium

facilities; you end up with your license, which is everything else, including that unique requirement; and then you've got your ISA summary, which is separate from the license application, and what the end result is going to be is an interrelationship between those things.

You've got your design basis, which is kind of an umbrella for everything else that's coming later in the license application.

So, we're not necessarily expecting shielding thickness.

MR. HASTINGS: That was probably a bad example, but you understand the point, and I think we'll be able to work through the details of what specifically goes where as we begin to develop more detailed information.

It sounds like we're sort of headed in the same direction anyway.

MR. PERSINKO: Like we said, this relates to the Part 70 rule, and the Part 70 rulemaking added the subpart (h), which introduced this concept of IROFS and ISAs and ISA summaries.

It didn't affect the rest of Part 70.

So, the kind of things that were normally done for applications, according to the rest of Part 70 -- I mean that would still apply, and I would expect it to be along the same lines of what has been done in the past for

licensing.

It's the IROFS and the ISA summary now that introduced this new risk concept into the rulemaking.

You know, maybe what will happen, too -- as I said, we're having this meeting on management measures where we're going to talk about degree of detail in an ISA summary versus other parts of the application, and maybe some of that might even spill over, I don't know, but it's along the same concept of what you're asking.

MR. HASTINGS: There were a couple of other comments that were made, and I don't want to steal Clifton's thunder, and I apologize, we don't have the same comment numbers that you guys got. I think that was an internal NRC development.

MS. BRYCE: DCS's stayed the same. But be clear, because I certainly can't keep the numbers straight.

MR. PERSINKO: Let me say that, too. There's no handouts given out at this meeting. I mean we're working -- NRC are working from our own internal documents on this, and I just want to make sure that the folks on the line know that.

MR. HASTINGS: One of the questions that I had -- and it's more a generic question -- is whether we, at some point, will see responses to each of the comments or not.

MS. BRYCE: Say that one more time?

MR. HASTINGS: Do you expect to publish the responses to the comments at some point?

MS. BRYCE: My intent at this point was to address the comments in the Federal Register notice, and I was going to be as inclusive as possible. So, I'll get as many as I can, but I'll also try and collect comments where they are similar in intent or in nature.

So, you ought to be able to get a pretty good sense of how we addressed each comment.

MR. HASTINGS: Okay.

The two that I heard that I was a little bit concerned about -- the first one dealt with NEI's comment on the prescriptive nature of the requirement for the establishment of safety committees, and it strikes me as unnecessarily prescriptive that the staff would prescribe a specific ALARA committee and, in fact, in effect, mandate what the organization of a licensee look like in terms of fulfilling the requirements, and I just make that as a comment in support of NEI, because I heard that you disagreed with a comment, and it strikes me as a much more prescriptive level of detail than the guidance should be making, first, and second, does make for many of the other areas including items relied on for safety.

That's just an observation.

MR. STRUCKMEYER: Well, I can address that quickly

insofar as to say that, if my memory serves me correctly, the ALARA guidance for the reactor side does mention having ALARA committee -- I don't remember if they say committee or subcommittee, but again, as I stated earlier, the amount of work and concern that a safety committee would have and be involved with, in my estimation, would be overwhelming, and I think this would be at least consistent with the regulatory guidance.

MR. HASTINGS: And again, it's just guidance. Recall that the size of this plant is going to be dramatically less than the size of an operating reactor, so the number of people that you have to assign to different committees from one day to the next is going to be much less.

MR. PERSINKO: One thing we'll do is we'll go back and look at it, because I think this was an issue discussed in the context of 1520, as well, and I think we ought to look at that.

MR. HASTINGS: The other question was maybe just a clarification.

The discussion of the requirement to seek estimation of radiological consequences for workers under accident conditions -- I understand that that's a requirement of Part 70.

I'm a little surprised to see that guidance in the

context of radiation protection, which is typically guidance in the context of normal operation.

I think the requirement to develop estimates of occupational doses in accident conditions should be fully treated by the requirements of the ISA, and I would expect not to see that treatment in Chapter 9, because it should be fully vetted in Chapter 5, just an observation.

MS. BRYCE: There's a little bit of cross-referencing between the radiation safety material and the ISA. We wrote the chapter with the expectation that the person that was doing the radiation safety review would also be closely looking at the integrated safety analysis, and because of that, there's a little bit of cross guidance, and so, we expect that, when we talk about the worker doses in the cases of accidents, we're talking in the context of accident conditions, not normal operations, and that we don't have the expectation that you would be addressing accident doses under normal conditions. That's not our expectation.

MS. OLSON: This is Mary Olson.

MS. BRYCE: Go ahead.

MS. OLSON: I got cut off for a while. I don't know whether it was at my end or somewhere in between, but I have a comment that kind of straddles Chapters 9 and 10. Is this an appropriate moment?

MS. BRYCE: This is a great moment.

MS. OLSON: Okay.

I have a concern about workers at this facility because of the chosen location, since we're all agreed that this is a unique project specific to DOE's contract. We know that it's going to be at a contaminated site, and we also know that, if, indeed, it is ever decommissioned, although the contract doesn't allow for that at this point, there's a lot of contentiousness about cleanup of current facilities because there was never a baseline monitoring done.

This is going on at Maine Yankee right now, for instance.

So, one of my concerns is that there be a baseline monitoring of the site required and that it be factored both for any future decommissioning but also in terms of worker exposure, because you've got to realize that there's more than one source term going on here.

I have no experience with the particular piece of land that this building is slated to go on, but the whole area is a bit of a challenge to anybody who goes to work.

MS. BRYCE: I'm 99-percent certain that we have recommended that DCS do conduct background measures to determine a baseline for the radiological conditions at the facility, preferably before they start construction, and if

it's not there, I'll make sure that it goes in, because we certainly intended to have that there.

MS. OLSON: I hadn't been able to find it.

MS. BRYCE: Then I will add it.

Is there anything else on rad protection?

[No response.]

MR. PERSINKO: Okay.

I haven't been able to reach the chemical safety personnel at NRC, reviewers at NRC, so I think this is a good place to break.

It's 12 o'clock. We're right about where we should be.

We'll pick this up after lunch with environmental protection and chemical safety and move on according to the afternoon agenda.

We're going to move locations for the afternoon. We're moving up to 16B4 in this same building. We couldn't get the room all day. So, you need to take your things with you.

We're going to establish the bridge-line again.

MS. GALLOWAY: Are the same parties on the bridge that started out at 10 o'clock?

MS. THOMAS: Ruth Thomas is here. Do we hang up during the lunch break?

MR. TIM JOHNSON: Yes.

MS. GALLOWAY: We should be expecting you, Ruth, and Mary to be plugging in?

MS. OLSON: Yes, I'm here.

MS. GALLOWAY: Okay. So, we'll expect you both back, then, at one o'clock.

MS. OLSON: Thank you.

MS. GALLOWAY: Okay. Thank you.

[Whereupon, at 12:02 p.m., the meeting was recessed, to reconvene at 1:00 p.m., this same day.]

A F T E R N O O N S E S S I O N

[1:14 p.m.]

MR. PERSINKO: First on the agenda, then, would be the section on environmental protection.

MS. GALLOWAY: We changed it.

MR. PERSINKO: We'll start with chem safety, then.

MR. MURRAY: Good afternoon. Can you hear me?

MS. THOMAS: Yes, I can hear you.

MR. MURRAY: Okay. Very good.

Well, we have received several comments on Chapter 8 on chemical safety.

These comments primarily are asking about clarification of terms, and there are two principle clarifications which I will very briefly discuss.

The first has to do with -- it's all involved with the NRC/OSHA memorandum of understanding and what is subject to NRC regulation and what is left up to OSHA regulation, and obviously, what will be subject to NRC regulation would ultimately be subject to a review under the Standard Review Plan.

What we have done in the revision, based upon the comments we have received, is we have clarified the text such that it is clear that we are looking at those items that are covered -- would be covered by NRC regulation in the MOU, namely licensed radioactive materials that have a

chemical safety -- potential chemical safety impact, potentially hazardous situations or chemicals which arise from those radioactive materials, and potential chemical hazards that might impact the safe handling of those radioactive materials, and this is all spelled out in the NRC MOU, memorandum of understanding, and we have just clarified the text in Chapter 8 to reflect that.

The second area had to do with -- there were some comments about what's important to safety, safety-related, and some terms which those well versed in the art seem to be quite comfortable with, but to make everything consistent with the draft rule and with other places in this draft SRP, we have basically standardized and just using the term "items relied upon for safety," or IROFS.

Okay?

MS. BRYCE: Before we go any further, Leslie, like I was telling you on the phone a minute ago, our audio-visual people just turned up, so we're going to pause for a station identification, so to speak, and we're going to change the phones out, so that we have one that picks up voices better around the room.

So, what we'll do is we're going to disconnect ourselves, and we will call you back probably in about five minutes, and we're just taking a small break, okay?

MS. OLSON: Call me back, too. This is Mary. It

took me a while to get here.

MS. BRYCE: We'll call right back into the bridge-line, so we'll get everybody back who's on the bridge.

MR. TIM JOHNSON: What you'll have to do is you'll have to call the bridge number back.

MS. BRYCE: Don't hang up. We'll be back in a minute.

[Recess.]

MS. THOMAS: This is Ruth Thomas, and we have a new person on the line, Dr. Mary Kelly, with the League of Women Voters.

MS. BRYCE: Okay. Is it K-E-L-L-Y?

MS. KELLY: Yes.

MR. MURRAY: Very good.

Just to finish up on chem safety, I believe there was also some comment about the level of information that would be required for the construction approval as compared to the second part of the license or the license submittal, and we basically have tried to make a judgement call.

We on the staff believe that we need to have information about the chemical process description, about some of the potentially hazardous materials, and other information that we've outlined in section 8.3 and 8.4 of the chem safety chapter, at least at some preliminary level

of detail for the construction part of the package.

I believe that's it. There are only those three comment areas.

MS. BRYCE: At this point, if anybody has any questions, comments they'd like to address.

MS. KELLY: Hello?

MR. MURRAY: Hello?

MS. KELLY: May I make a comment?

MR. MURRAY: Who is this, please?

MS. KELLY: This is Mary Kelly, with the League of Women Voters.

MR. MURRAY: Hi there, Mary.

MS. KELLY: I have not had a copy of this total document, so I've only read small pieces of it.

MR. MURRAY: That's okay.

MS. KELLY: But in general, I would have great concerns about chemical safety.

In the reactors, they're going to be dealing with a new entity, and also, I think that some of the problems are vastly under-estimated.

I can think of a problem they have at the Savannah River site, they have had with the defense waste processing plant, where, not realizing the chemical reactions that would be involved, has resulted in fires because of the evolution of benzine.

So, I do think that that whole chemical safety area is something that needs to be very carefully considered.

MR. MURRAY: Okay.

MS. KELLY: Also, I've been reading this article about the changes that take place with plutonium oxide, and you have not only the evolution of heat, but under certain circumstances, you can get the evolution of hydrogen, and these, I think -- I really do think these are underestimated problems.

MR. MURRAY: Well, as part of the Standard Review Plan, we would be reviewing for potential safety hazards such as those.

Have you had a chance to look at the draft Chapter 8, Mary?

MS. KELLY: No, I have not.

MR. MURRAY: What I can say briefly -- I don't want to read the whole thing to you right now, it would take a little too long, but we do have a part in there where both expected reactions and also unexpected reactions, potential radiolytic processes, byproducts, decomposition products, etcetera, should be considered where appropriate, and I believe that would address some of your concerns. We specifically mentioned radiolysis.

Obviously, this is dealing with a MOX plant, which

would not use the -- or is unlikely to use the Savannah River, defense waste processing facility processes, but I believe the review plan will pick up those concerns and identify them if they have not already been identified by any potential licensee.

MS. KELLY: Okay. Good.

MR. MURRAY: We're all concerned about chem safety, believe me.

MS. KELLY: With reason.

MR. MURRAY: Yes.

MS. BRYCE: Are there any other comments from any other participants?

[No response.]

MS. BRYCE: Thank you very much.

We'll just talk briefly about environmental monitoring, which is the next subject area on the agenda.

I need -- we've made several clarifications to the chapter, one of which we clarified, but we're intending to do one environmental impact statement that covers both the construction and then the license to operate and possess special nuclear material, and as we discussed earlier, we expect the process for the environmental impact statements to start this fall.

I tried to make some clarification in terms of the ISA review just so that it's clearer, so reviewers and also

DCS understands what reviews we'll be conducting in terms of the construction approval and the license to possess special nuclear material, use and possess, and the remainder of the comments had more to do with the relationship between environmental monitoring and the ISA and the performance requirements, and in most cases, I disagreed.

Effluent monitoring and environmental monitoring and radiological safety as it pertains to environmental protection all falls out of 10 CFR, Part 20, which is a requirement under normal operations, and as a result of that, we're not going to be making changes, those all stand. It's all pretty much tried and true.

As an addendum to that -- actually, scratch that. I'm not going to go any farther.

If anybody else would like to comment or has any questions --

[No response.]

MS. BRYCE: Then we'll just move along.

MR. CLEMENTS: This is Tom Clements. When would the EIS be completed?

MS. BRYCE: We're guesstimating at this point, from the time we start, probably about two years afterwards.

MR. CLEMENTS: For the final record of decision or this is for the draft?

MS. BRYCE: No, no, that will be just for the --

issuing the EIS. That's not the record of decision. That would be to get the final EIS out.

That would be covering scoping, preparing the draft, and then issuing a final, and then the record of decision would come sometime later.

MR. TIM JOHNSON: The next section to cover is financial qualifications, and in that area, there are only a couple of comments, but they also basically reflected the same theme, that because DOE is funding the construction and operation of the MOX fuel facility, that no financial qualification review is needed.

Basically, I think we disagree with that, and we recognize that the funding will be provided by DOE, but the applicant is a private corporation, and as such, we're still interested in understanding their financial capabilities to construct and operate the facility, and the kinds of things we're interested in are those described in the SRP, which includes what funding sources there are -- DOE is obviously one, but there may be others in terms of debt that the private corporation may be planning on assuming; what the project funding requirements are going to be as a function of time and progress; any contingencies that may be planned for funding shortfalls or cost overruns.

These are the kinds of things that we still feel we need to understand in order to address financial

qualifications.

Are there any comments on that?

MR. HASTINGS: This is Peter Hastings.

Just as an observation, it seems to me that, because all of the -- and Jamie will correct me if I'm wrong -- all of the funds for construction, at a minimum, and the bulk of operation are funded exclusively from DOE, this would put NRC in the business of drawing some judgement about DOE's budget, and that doesn't involve the applicant, I don't believe.

I have to admit, I'm a little fuzzy on the details.

MR. JAMIE JOHNSON: Let me clarify. Both of you said that -- DOE is not really going to be funding the operation of the plant.

We have agreed to pay for the first year, and depending on the cost value of the fuel, you know, we'll make that difference up, but by and large, the contractor is going to operate the plant on its own nickel.

So, the heart of this comment is -- it's really not so much we're opposed to showing financial qualifications, but let the contractor show their financial qualifications for operation, for operating the plant, because that's where you really -- as far as designing and constructing the facility, DOE has agreed to pay for all

that, and we do not anticipate these guys taking out debt and loans and all that kind of stuff for the design and the construction of that facility.

I mean it's a Government-owned/contracted/operated facility, and so, the thinking is why -- if you want to know the cost and schedule, I mean that's public information via the budget process.

Understanding where the NRC is coming from, I mean you would be concerned with DOE funding and they're operating on their own nickel.

So, wouldn't that be more of a realistic position to take?

MR. TIM JOHNSON: Well, I think we're also interested in is there sufficient funding to construct the facility the way it's supposed to be funded? I mean, obviously, when you have construction contracts, there can be cost overruns.

We certainly want to make sure there's sufficient money to do it properly and that there won't be any cost-cutting measures that, you know, can affect safety, and this is all part of the reasons why we asked for financial qualification information.

MR. PERSINKO: Because we know DOE budgets can fluctuate, and we don't know the mechanism that assures that you are funding it. I mean we don't know that. All we've

heard is you're funding it. But I know your budgets fluctuate.

I guess we were looking for more assurance than what we have. We don't have much right now, I guess.

MR. JAMIE JOHNSON: In terms of Congress actually providing the funds or just the whole process in general?

I mean the way we're going to do it is DCS -- I mean they will come up with a baseline cost estimate based on what it's going to cost to build the facility, and a lot of that can be driven by NRC requirements, and they'll come to us with an estimate of how much it costs, and DOE would take that estimate and work the budget process and ensure that money is going to be there, because we're owning the facility and to make sure that sufficient contingency is applied for construction and design.

I understand your comment. I see where you're coming from.

I'm just concerned that, you know, we get too much into --

MR. PERSINKO: We understand, you know, you can't write a blank check, but on the other hand, I mean what if an estimate comes up -- I've kind of seen situations like this -- and DOE says all we can fund is 50 percent of it, so go do it with 50 percent?

I mean is there something in place that assures us

that there will be adequate funding to completion the construction?

MR. JAMIE JOHNSON: Just like any DOE project, year to year, we're subject to congressional approval.

MR. PERSINKO: I think that's exactly our point, year to year. What if, next year, you don't get it and we're sitting there with a half-built plant? I mean I don't know.

MR. JAMIE JOHNSON: How much value-added are these guys going to add to the design and construction? It all comes back to the budget process. I can see your point.

MR. HASTINGS: To clarify for the record, DCS doesn't particularly object to the requirements.

It's sort of new ground for everybody, and DCS inserting themselves by virtue of their license application in the discussion between NRC and DOE, where NRC is going to question the adequacy or veracity of the DOE budget profile, DCS arguably has little influence over either side of that equation.

So, it's sort of odd. That's the main reaction.

MR. TIM JOHNSON: Well, we understand that DCS is depending on funding from DOE for a large portion of this, but also, we want to make sure that DCS has a program in place to make sure that they have adequate money to do the job the way it's supposed to, and kind of the story that

Jamie just told here is reflected in this, and I don't think that any of us can guarantee what Congress is going to appropriate from, you know, one year to another, but clearly what we're interested in is that there is sufficient money to do the job so that the result is a safely designed plant and properly designed plant that's constructed and operated properly. That's what our orientation is.

MR. CLEMENTS: This is Tom Clements.

For DCS, isn't the question -- it's more of operation.

It is a congressional question about the funding in construction, but for DCS -- I don't really understand the formula, but it's the differential between LEU fuel and MOX fuel that comes into the equation here and what that differential is, and if it's skewed one way or the other, then there's going to be an effect on the operating costs.

So, it's more DCS operating, not the construction funds, that NRC should be looking at as much.

MR. TIM JOHNSON: Well, I think we're looking at both.

MS. GALLOWAY: Let me understand, too.

Is there any provision in the contract arrangements between DOE and DCS that, if DOE funding is not at a certain level, DCS needs to pick up the difference, or if there's any fixed price, that you agree to do it at a

certain cost, and if you can't do it at that certain cost, you have to pick up the difference, or the contract written such that, whatever it costs, DOE will obtain the funding to do it, and if DOE does not obtain the funding to do it, presumably it won't get done?

MR. HASTINGS: That's a lot of questions.

I'm not, by any means, an expert on the contract, but there is no provision that I am familiar with where DCS picks up the additional cost of design and construction in any event.

If we pick a hypothetical where the funding profile in year X is insufficient to complete the design, then the schedule suffers.

I think that's the short answer.

The operational issue, as per Jamie's clarification -- and it is a good clarification -- that is an issue that DCS will be required to address in Chapter 2.

We're actually more concerned about the construction part, where we really -- we're going to be attesting in our license application to a DOE budget, and again, it's just sort of an odd situation to be in.

MR. JAMIE JOHNSON: We have not -- right now, the way the contract structure is set up, we're in the base contract, with option one, option two, then deactivation, and so, we have yet to negotiate the construction portion of

the contract.

It will be probably a cost-plus-type contract.

MS. OLSON: This is Mary Olson. I can't tell if I'm diving on top of anybody.

MR. TIM JOHNSON: No, go right ahead.

MS. OLSON: I have a comment, but I have to ask a question first.

Is this license intended to be for the duration of operations or the duration of contract?

MR. HASTINGS: I'm not sure we'd distinguish between the two.

MS. OLSON: The reason is the contract only mentions deactivation, which someone just finally mentioned, that we're not only dealing with financial qualification for construction and operation but any facility which is constructed will someday be decommissioned one way or another.

This contract does not include decommissioning, and yet, the facility's license and financial qualification should certainly take that into account, and I'm trying to figure out how that's going to be resolved here.

MR. TIM JOHNSON: Well, as I understand it, Mary, DOE is responsible for the ultimate decommissioning of the facility.

In fact after the fuel fab portion is deactivated,

DOE may want to use those facilities for something else.

So, the current plan is that DOE would be responsible for decommissioning at whatever point in time that occurs, but it isn't necessarily connected with the operation of the fuel fab facility.

MS. OLSON: And so, financial qualification is not required for decommissioning for this license?

MR. TIM JOHNSON: They would have to address it, but it's my understanding that they'll address it but DOE will be responsible for the ultimate decommissioning.

MR. JAMIE JOHNSON: DCS does the deactivation. I think we have a clause in the contract -- there's a certain amount that we would provide for that, but then they turn the facility back over to DOE, and then we decommission it, or do whatever with it, on our own nickel.

MR. CLEMENTS: Tom Clements.

Let me pursue this question about the operation cost, because I thought the contract was based on the differential between the cost of LEU fuel and MOX fuel.

If you can produce the MOX fuel cheaper than LEU, then there's a bigger amount that goes to the company, but if the price of production of MOX goes very high and it's much more expensive than LEU, then there could be some impact on the operation of the facility if you're not making any profit out of it.

So, I think that's where the NRC really needs to analyze what's in the contract based on that differential in fuel.

Now, maybe you can explain how the contract reads with the production side and the operations side, but I thought the money was going to be made if there was a big differential between the LEU and MOX.

MR. JAMIE JOHNSON: This issue has been discussed quite a bit, and we'll negotiate the specifics when we get to that point, but generally how it's going to work, those scenarios you played out, where there's money to be made by DCS, they won't even be allowed to make a certain amount of money.

On the other hand, you know, if they're really losing money, DOE will help pay for that differential -- I shouldn't say help pay, but you know, we'll have to negotiate that.

So, it goes both ways, and those scenarios are going to have to be negotiated when we get closer to -- I think it's option two in the operations contract.

MS. THOMAS: Ruth Thomas with a question about how could this funding -- because it sounds like it's going to be a lot of money -- how might it affect the funding for cleanup at the Savannah River site?

MR. TIM JOHNSON: I don't think it's related to

the cleanup of the Savannah River site.

Is that true, Jamie?

Her question was how is the funding for this related to the cleanup of the Savannah River site?

MR. JAMIE JOHNSON: Talking about decommissioning?

MR. HASTINGS: No, just in general, reservation cleanup.

MR. JAMIE JOHNSON: Funding the whole MOX facility?

MR. HASTINGS: No, the Savannah River remediation at large.

MR. TIM JOHNSON: Ruth, can you repeat your question again, please?

MS. THOMAS: I wondered what connection there might be, particularly in the future, of the cost of these operations, the cost of funding in terms of the plans and work on cleaning up at the Savannah River site.

The costs for that have increased over the estimate so much, and I think maybe the cost of -- for some of the health studies was cut back because of -- and also -- oh, yes, they needed the money, too, to pay the exposed -- the people that were exposed.

I mean it seems like there's always plenty of money needed, and so I wondered if an estimate or an evaluation of that particular problem had been done.

MR. CLEMENTS: Well, one thing to add to that, maybe, that she's getting at is, say, the waste streams coming from the facility. Will that be paid for by DCS, or will that affect the site operating budget on waste disposal?

MR. JAMIE JOHNSON: The deactivation?

MR. CLEMENTS: No, just the waste streams.

MR. JAMIE JOHNSON: The way it's going to work is there's going to be agreements worked out for certain government services that will be provided by DOE at Savannah River, and we'll just take a simple example like low-level waste disposal.

That will be budgeted as part of the activities at Savannah River.

That is not a DCS budgeted activity, and we're going to pay DCS for the design and construction, but there may be certain services that would be contracted out in Savannah River, maybe health physics or the utilities, you know, waste management services, and then my job will be to make sure that there's enough money on the DOE side to cover those services, but those services are not the responsibility of DCS in terms of a funding perspective.

Does that answer the question?

MR. TIM JOHNSON: Did that answer at least some of your question, Ruth?

MS. THOMAS: Yes, I guess so.

In other words, there's some uncertainties that are not resolved.

MR. TIM JOHNSON: Well, I think what DOE is saying is that they're going to be negotiating various service contracts with DCS to support the operation, and at this point in time, they haven't all been concluded or refined yet.

MR. JAMIE JOHNSON: Right now we're doing some interfacing on the design, just getting information from Savannah River on -- input into the design, but as we go through each phase of the contract, certain interfaces will have to be worked out -- design, construction, operation -- and we'll take those as they come, but we're trying to lay out the overall blueprint over the next year or two and have agreements that are being worked out.

The money for design and construction -- I don't think it would be considered as part of the Savannah River budget, because it's not going to Westinghouse, it's going to DCS.

Maybe that will help clarify it, too.

MS. THOMAS: What about consideration of insurance in case of accidents and so forth? Does that fall under the -- is that a question to ask at this time?

MR. TIM JOHNSON: Yes, I think it is a question to

ask at this time, and it's my understanding that, in terms of say, Price-Anderson Act kind of coverage, there would be some arrangement between DCS and DOE.

MS. THOMAS: Leslie Minerd wanted to ask some questions on that, and she didn't hear what you said about Price Anderson.

So, hold on a minute. Here she is.

MS. MINERD: I'm sorry. We're sharing a phone. So, you have to repeat that, about the Price Anderson Act.

MR. TIM JOHNSON: Right. NRC has requirements that the Price Anderson Act coverage be provided, and it's my understanding that there will be an agreement between DCS and DOE to cover that under DOE's provisions.

MS. MINERD: So, Cogema is going to be covered under the Price Anderson Act.

MR. TIM JOHNSON: Yes.

MS. MINERD: Is that unusual to have a foreign contractor's insurance paid by American taxpayers?

MR. HASTINGS: Cogema is not covered by Price Anderson. It's Duke/Cogema/Stone & Webster, which is a separate company, that will be covered by Price Anderson, in accordance with negotiations with DOE.

MS. MINERD: Okay.

So, this is the first MOX facility in this country, but I thought that Price Anderson just dealt with

nuclear power plants, and this isn't a power plant, or am I wrong?

MR. TIM JOHNSON: No. Price Anderson Act coverage can extend power plants.

MS. MINERD: Okay.

MR. TIM JOHNSON: Are there any other comments or questions?

MS. KELLY: This is Mary Kelly.

I realize that what you're saying is what is planned, but experience has shown that, when there are budget shortfalls or unexpected need for funds, a fair amount of fund shifting occurs, which is a concern for many of us.

MR. TIM JOHNSON: I agree, and I think that's why we're asking for this information to be submitted with the application, and again, one of the things I mentioned that needs to be addressed are contingencies in the event of just the thing that you mentioned.

MS. MINERD: Here in South Carolina we're really concerned about such things, because -- you, of course, are familiar with the department, DHEC, which is very lax compared to environmental agencies in other states, and we just had this happen to us where the -- it used to be called Laidlaw and then Safety Clean is the giant, you know, toxic waste landfill, and they've gone bankrupt, and you know,

it's left up to the taxpayers, which is -- when we hear that it's left up to the taxpayers once again, it's just very disheartening, because it's going to cost a whole lot to clean that place up.

MR. TIM JOHNSON: Right. Well, that's one of the reasons why we are asking for this information to be submitted.

MS. MINERD: Okay. Thank you.

MR. TIM JOHNSON: Are there any other comments?

MS. MINERD: Not on that.

MS. BRYCE: With that, we're going to move on to the discussion about the ISA, which is the Integrated Safety Analysis.

MS. THOMAS: I'm back. What was that? This is Ruth Thomas.

MS. BRYCE: Hey, Ruth. We just finished our discussion on financial qualifications, and with that we're going to move on to the Integrated Safety Analysis and Appendix A, which is Chapter 5 to NUREG-1718, and Andrew Persinko, Drew, will be talking about that, as will Dennis Damon, and whichever one of you guys wants to lead off -- Dennis?

MR. PERSINKO: Let me just give a lead-in a bit, because the ISA chapter in 1718 is closely tied to -- closely mirrors the ISA chapter in NUREG-1520, and it's

purposely that way.

I mean Dennis is the author of both -- now, we've had a meeting -- a public meeting on 1520 in late April, and we received comments at that meeting on the ISA chapter which we are still working on.

We've gotten quite far on it, but there's still work to be done, and as late as last week, we received additional comments on the ISA chapter in 1520.

There are at least two additional comments that were sent in last week.

So, the 1520 ISA chapter is still being looked at with respect to these most recent comments to determine how, if these comments should be factored into the ISA chapter.

Now, subsequently, then, that chapter will set the precedent for how we are going to address it in 1718, since we want both chapters to be very, very much the same, and that's the intent.

So, what I'm saying is that we're still looking at in 1520 space.

So, that may supersede many of the comments we have received.

Are there any particular comments you wish to discuss now based on this intro I just made as to what the status is?

MR. HASTINGS: Well, I think the bulk of the

comments that DCS provided, in any event, on Chapter 5, as well as DOE's and NEI's, were generally consistent with the type of discussion that took place in the 1520 meeting, and we did get some clarification on the ISA requirements in that 1520 meeting.

The MOX SRP, as you mentioned, because it so closely mirrors 1520 with regard to ISA, leads to some of the same confusion that 1520 did, and I think Dennis provided a lot of clarification of 1520.

There's some additional factors in the 1718 write-up that sort of fostered the same kind of confusion, notably the fact that the likelihood thresholds -- the numerical likelihood thresholds that were cited as examples weren't necessarily consistent from one chapter to the next in the ISA, and then I've heard some discussion, some hallway discussion, if you will, both within DCS and elsewhere that -- well, maybe qualitative thresholds are okay, which was the thrust of the 1520 meeting conversation, but how do you really make the argument without a numerical treatment, and so, it sort of gets us back to the same place that we were in the examples with the SRP.

There is a lot of discussion in the SRP about how a quantitative treatment, by way of example, is acceptable, and unfortunately, by its exclusivity, the only example that's in there is numerical.

It sort of leads one to the conclusion that the numerical treatment is what you're looking for, and the staff said in the 1520 meeting that's not what they were looking for, necessarily, and I certainly don't question that, but I am hoping to get some kind of clarification on what the position is.

If we think that the discussion that took place in the 1520 meeting is going to represent the staff's position on the definition of thresholds and, if so, how we reconcile that sort of disconnect between the establishment of qualitative thresholds for definition of unlikely and highly unlikely against the sort of maybe softer perception that, without numbers, it's tough to make the argument, because I'm sensitive to that concern, and I want to try to get some clarity if we can.

Dennis, I don't know if that helps frame the comments.

MR. DAMON: This is Dennis Damon.

I was just thinking there's one thing that may help clarify things, and that is we do like the indexing method that's posed as an example in Appendix A of 1520 and also in the MOX NUREG.

We like that method because we've seen BWXT apply a method like that, not the same identical one but an indexing method.

Their indexing method is not quite as explicitly related to frequencies of failure and so on, although underlying it, there is an implication that it is. It's tied directly to qualitative -- purely qualitative criteria that they use to assign index numbers.

We like that kind of a method, because it has fairly explicit criteria for assigning the indices, and it's flexible.

When you go to a more -- but having said that, we can envision that a more purely qualitative method can be used, but by saying it's purely qualitative, meaning you're not using any kind of indexing scheme like that, means that somehow the applicant will define a methodology which has qualitative criteria in it, and it can apply those criteria and somehow identify that a particular unit process is in a certain quality category.

The quality may not have an index number associated with it, but it's in that category, and then those categories will be grouped and said these the applicant asserts -- this group of categories the applicant asserts are highly unlikely, and this other group is unlikely, in the words of the proposed Part 70 regulation.

So, that's what a purely qualitative methodology is and how it relates to thresholds.

Now, the question is what would the staff do with

such a submittal, because if they're purely qualitative criteria, which ones would the staff say would be acceptable as highly unlikely and which ones would it say were unlikely?

Well, one point of reference is the double-contingency principle that the criticality community is familiar with, which calls for independent redundancy, and we've said in previous public meetings that a well-applied version of that would probably meet -- you know, qualify as highly unlikely.

However, if you go down and actually take an example and apply a quantitative analysis to it to see if a particular set of controls meets that -- meets a quantitative criterion, you find out that you have to have a pretty good quality of double-contingency.

It cannot be that just semantically barely meets this thing. It has to be good, solid, high-quality controls.

And the same logic, I think, would tend to apply to any other qualitative scheme like double-contingency. That is to say, when you get away from indexing, you drive up the quality level that things have to be, because you can't trade off a good thing against a lesser thing.

So, like when you do indexing, you could have one control that scores high and another one that scores lower,

and you say, well, these both qualify in my scheme and they trade off against one another, the sum meets some criterion, but if you have a purely qualitative one, then they all have to raise up to the level of the higher one, because you're just going to say you have two of them, okay?

So, now, two of what? Well, two of them that meet my standards. Well, what's your standard? Well, then it's got to be the high standard, see? It's got to be a higher standard.

It can't both be the minimum, because then that wouldn't -- or it has to be somewhere in between. It has to be a relatively high threshold, because you can't trade off against things.

And one other thing I wanted to say was that the other difficulty with the qualitative scheme and why there isn't an example in the appendix to either one of the NUREGs is that it's very difficult for the staff to anticipate all the different kind of situations that come up.

I mean double-contingency, obviously you can -- we can put that in there, but that's fairly trivial.

But what, really, it comes down to is specific objectives criteria that the applicant defines by which it would say that a given design either is highly unlikely or unlikely, and what you find is that, if you're going to do that in a manner that's fairly specific to the types of

equipment that you have in your plant, well the staff has difficult doing that, because we can't -- we don't have -- in fact, until we get the ISAs, we don't have that kind of information about the plants to sit there and go through a bunch of designs and say develop a categorization scheme, and I think, in fact, that's what BWXT was faced with when they derived their indexing scheme.

They started down -- I think it was something that was developed by them, not -- it didn't appear out of the thin blue, and that's what we anticipate happening with any other plant, is you need to develop your own criteria for what is sufficient and then tell us what that scheme is, and then we'll just have to see if it's equivalent to these examples that we've seen in the past.

MR. HASTINGS: I think it's going to be an intriguing exercise.

MS. GALLOWAY: Are there any other comments on the ISA chapter?

MS. THOMAS: Yes, I have one related to -- this is Ruth Thomas -- related to 5.0-30, where, at the bottom of the page, it talks about the accident sequences.

Now, would migration of plutonium into the drinking water systems of local areas -- would that be considered an accident sequence or series of sequence? Does that come under that?

MR. DAMON: Whether something is an accident or not depends on whether it's a normal operation or whether it's an unintended accident.

The ISA is intended to address accidents, namely things that are not supposed to ever happen.

So, if the question is how would plutonium get to the drinking water supply, if it resulted from an accidental release or spill or something, it would be an accident sequence.

MS. THOMAS: Dr. Kelly was mentioning -- bringing up about the new information about the migration of certain forms of plutonium, and I remember back in the 1970s the U.S. Geological Survey was concerned about this, because they said not enough was known about plutonium, and they reached a conclusion that, if the plutonium did migrate to drinking water, it would make the area uninhabitable.

Now, I know it's going to take some time, so you mean an accident is more where it happens over a short period of time or -- certainly, this is not something that anybody would want to have happen, and if not enough consideration went into the nature of plutonium, then this very well could happen.

MS. BRYCE: Ruth, this is Amy Bryce.

Usually when -- and this is speaking from a purely environmental perspective, but if you're talking about a

potential effect on somebody like yourself, a person who's living outside of the Savannah River site, when we think about accidents, we usually think about airborne transport, because that's what's going to happen extremely fast.

Something like leaking into the -- where you would have a plutonium source that's leaking into the ground water -- that would also be considered an accident, and the difference would be that it would be a much slower transport to a member of the public.

It doesn't mean that we would consider it any less important. It's just the timeframe.

Now, under normal conditions, where you might have plutonium being released through a stack or through a water effluent of some sort, we would expect DCS to be perpetually monitoring the amount of plutonium that goes into the environment.

They're going to have to be able to tell us and report back to us pretty exactly what's going on, and they're also going to have to be doing some environmental monitoring, so that they can track where things are going, because I understand your concern that, once something gets out of the facility, it can be extremely difficult to keep track of where it's going.

That's true for -- almost across the board for all types of chemicals.

MS. THOMAS: Well, the same group of scientists said that, at the particular site, the Savannah River area, it was possible for plutonium to bypass the monitoring wells and move undetected into drinking water sources.

MS. BRYCE: What we would be looking for as the NRC would be for DCS to keep their emissions extremely low, extremely, extremely low, as low as is reasonably achievable, is what it comes down to.

MS. THOMAS: It says, on that same page, I believe, postulated accidents resulting from this facility that may be anticipated to occur.

In other words, some of these may not be anticipated.

That's where this unlikely, highly unlikely, and so forth, categories come into play, where somebody is making a determination as to what they think is likely and what they think is not likely and highly likely and so forth.

MR. DAMON: Well, it's true, that's the purpose of the ISA, is to require that the applicant expend a considerable effort to try to identify all the ways that accidents could happen, and naturally, you can't absolutely, 100-percent guarantee you've thought of every one, but that is one of the purposes of the ISA, and then you do the environmental monitoring as another type of -- in one sense,

it's a back up to perhaps some kind of an emission that you hadn't thought of, but generally speaking, like Amy says -- I mean I am quite knowledgeable about plutonium dosimetry and the environment, and it's the airborne pathway you really have to worry about.

I really personally would not have any qualms about drinking water off-site under any conditions, but inhalation is very -- plutonium is definitely a serious hazard.

MS. THOMAS: Well, I wanted to say that I agree with that, that breathing it in is -- but the thing is that this monitoring is -- plutonium -- if I'm correct in what I've read, and Dr. Kelly could comment on this, too, that it is extremely difficult to detect, and once it gets in the air and is spread around -- I mean certainly individual members of the public don't have equipment to detect this, plutonium, and I know from my reading that some of this material has gotten out into where people are.

MS. BRYCE: And we would expect that DCS would tell us about their environmental monitoring program so that they would put together a monitoring program that captures the amount of plutonium that's traveling just about anywhere, and I can't -- since we don't know what they're going to submit, we can't talk yet about exactly the number of sampling sites or locations or anything like that, but it

will be based on the environmental conditions at the site and a little bit of consideration towards what public expectations are in that regard, and we'll eventually reach a consensus about what the NRC is going to license.

MS. THOMAS: You mean this will be considered when the applicant -- in other words, the applicant also has not considered if the facility will have the site problems of the Savannah River plant.

MS. BRYCE: No, no, I'm sorry, I didn't mean to mislead you. I'm just telling you that eventually the applicant is going to tell us exactly where they plan to sample, and we'll look at what they tell us, and we'll work from there.

MS. THOMAS: Oh, that's when the licensing comes up?

MS. BRYCE: Right.

MS. THOMAS: I see. Thank you.

I don't know whether Dr. Kelly has a follow-up question or not.

MS. KELLY: Well, I have one question that occurred to me.

Where does the state agency come into this? You know, we have the state agency involved with things that fall under the jurisdiction of EPA, and the state agency has also been doing the monitoring at Barnwell, and are these

things that the state agency is going to be able to be consulted about, since you're letting the applicant tell you where the monitoring sites are going to be?

MS. BRYCE: Well, I wouldn't say it quite like that. They're going to propose to us, and then we're going to consider what they propose and work from there.

The NRC would have authority over plutonium. DHEC would be more in terms of EPA-related issues, and that tracks back to how DCS and DOE would be handling their EPA-type permits.

MS. KELLY: The comparison I was making is the way you have delegated authority over the low-level waste site to the state agency.

MS. BRYCE: That would not happen for this facility.

MS. KELLY: So, you'll be doing direct regulation and monitoring.

MS. BRYCE: That's the NRC headquarters, and there's also a regional office of the NRC that's located in Atlanta, Georgia.

MR. TIM JOHNSON: This would not fall under the agreement state program, this license.

MS. KELLY: All right. Thank you.

MR. TIM JOHNSON: But that doesn't mean that we're not going to just ignore the state agencies either. We're

going to be talking with them, and they'll be involved in our future meetings and so on.

MS. KELLY: Good. Okay. Thank you.

MS. BRYCE: With that, we're going to move on to -- oh, I'm sorry.

MR. JAMIE JOHNSON: Specifically on the ISA, how are you going to address some of these DOE comments?

I understand the general nature of the comment here, but should we just wait until the next draft to come out?

Number two, we're not going to have that much flexibility in the SRP in terms of the qualitative versus non-qualitative.

Is that the position that the NRC is taking right now in light of last month's meeting? I'm still fuzzy. I mean are you guys still wrestling with this? Is this kind of where we are right now in the process?

MR. DAMON: Would you restate what is your question with respect to qualitative and quantitative? The first question had to do with whether we're going to answer your questions.

MR. JAMIE JOHNSON: yes.

MR. HASTINGS: I had a similar follow-up question. Let me ask mine, as well, because I think it's the same question, and maybe you can answer both questions at the

same time.

In addition to the overall discussion about qualitative versus quantitative, which, again, has been ongoing through 1520 for some time, we also had made a comment about the extent to which DCS was going to be required to define the number of intermediate and high-consequence accidents to try to align with the Commission goal that seems to be -- seems to result in -- if one takes a numerical approach to the threshold, seems to result in different thresholds than those that are specified elsewhere in the SRP -- that is, 10 to the minus 2 and 10 to the minus 5 -- and so, the question that I was going to ask -- and I think it's the same question that Jamie is asking -- is given the discussion that's taken place in 1520 space and given the discussion that you just had on the choices between qualitative and quantitative treatment of likelihood thresholds, where do we go from here?

What's the staff's intent as far as documenting your expectations and the options that are available to an applicant either in 1520 or 1718 for presenting our scheme for definition of thresholds?

Did I capture your comment?

MR. DAMON: When you say "where do we go from here," are you asking us are we going to try to further clarify these -- the methodologies that would be acceptable,

is the NRC going to do further guidance?

MR. HASTINGS: Yes.

MR. DAMON: Is that what you're asking?

MR. HASTINGS: Yeah.

MR. DAMON: Good question.

MR. PERSINKO: Well, I do know that we're still working on the ISA chapter. So, I wouldn't say that the ISA chapter that is currently out there is the end, because like I said, we received two comments late last week that we still haven't fully digested.

So, I believe that as far as -- even in 1520 space, that there's going to be some revision, some tweaking of the ISA chapter.

MR. DAMON: There's one other possible mis-interpretation that you may have gotten from the discussions, and that is -- what the staff was trying to do with the Standard Review Plan chapters was to say that the ISAs must use a systematic methodology, consistent methods, methods that have some basis in either your own experience or experience with other plants, and therefore, what the staff is trying to say is you can use fully quantitative methods, you can do a PRA-type analysis, or you can use this indexing method that's in Appendix A or you can propose to use some scheme that appears to be purely qualitative.

So, all three are acceptable.

The staff -- if you ask individual staff members, the staff would have their preferences.

We made a presentation to the ACRS/ACNW subcommittee on risk assessment. They prefer quantitative methods.

So, we're saying -- we're not saying that we want you to do qualitative. In fact, if we've said anything, we'd say we'd like you to do quantitative, but what we want you to have is a good systematic method that can be justified and stand up to comparison to other analyses that you've made the accidents highly unlikely.

So, we're not saying you have to do qualitative.

MR. HASTINGS: I don't want to belabor the point, but I don't think that's exactly what was said in the 1520 meeting.

I think what was said was that the staff didn't require quantitative treatment and, frankly, didn't expect any applicant to submit a quantitative scheme.

MR. DAMON: That's a true statement of expectation. Among the uranium licensees, none of them appears headed that way.

See, we've been trying to get the uranium plant licensees to do ISAs for many years, and many of them have made commitments to do them. None of them are doing them quantitative.

So, that's what I meant by that statement. It's not a generic statement to the grand future. It's to the particular class of licensees that are covered by that 1520, which is just uranium licensees, that that 1520 is a Standard Review Plan really just for non-plutonium licensees, and in that context, none of those that are in that class currently propose to do it quantitatively, but if one in the future comes in and chooses to do so, then that's perfectly acceptable to the staff.

Having said that, you can do a bad quantitative analysis just the way you can do a bad qualitative analysis.

MR. HASTINGS: Yeah, that's the concern, because we don't want to turn it -- as you mentioned in the 1520 meeting, we don't want to turn it into a pencil-sharpening exercise, because that tends not to add a lot of value.

I had a couple of additional follow-up questions on Chapter 5, and I know this is going to take us even farther off schedule, but obviously Chapter 5 is one of the key chapters.

There are several places -- and we never have really hit on this particular subject, and it crosses several chapters, but 5 is one of the areas where it's fairly specific, and that is the level of detail for the CAR, as opposed to the second step of the possession and use license application, and several of our comments allude to

the fact that there are some areas in Chapter 5 where it seems like the guidance is asking for more than we think the rule requires or that's even appropriate for the construction level of detail.

MR. PERSINKO: Do you still think Chapter 5 implies that -- I mean says that based on the clarification I gave this morning where I said, for the CAR, meaning construction authorization -- we're talking design basis here.

I said we're interested in knowing enough information so that, on the basis of the design basis information, we can conclude that it's likely that the performance requirements will be met.

I did slightly -- one thing I should clarify is that that's with accidents and process kind of things, it doesn't involve safeguards, and that's another area, but we still need information on that, as well.

I just want to clarify that, because this morning I strictly limited it to the performance requirements. Well, there's still the area of safeguards that we still need to know information there, but I'm talking strictly on the process side.

So, based on what I said this morning, does that --

MS. THOMAS: We are having difficulty hearing.

There's a lot of noise on the line, and people mustn't be as close to the speaker-phone or to the mike as they could be.

MS. GALLOWAY: We're going to speak up, Ruth.

MR. PERSINKO: Based on what I said this morning, the attempt I made at clarifying design basis information, where I said a hazards analysis and possibly some element of accident analysis, as well, maybe some types of bounding analysis, I don't know, but some element of accident analysis, too, would be necessary in order to come up with a design basis.

Based on what I said, do you still have a problem with the way Chapter 5 is written?

MR. HASTINGS: Only to the extent that the few examples that we cited seem to contradict that, and examples include where the -- for example, 5.4.3.1 talks about the fact that the full-blown ISA isn't required for construction authorization, which we believe is true, but then it goes on to specify details such as the type of sensing and even the types of control devices that are IROFS at construction authorization, and that's a level of detail that we simply won't have.

Another example is -- I don't remember the section per se, but it was our comment 40. It's important for the staff to realize that the ranges and values for all IROFS simply won't be available because of the maturity of the

analysis and the design, and I think that's consistent with what you had indicated.

So, I guess maybe the best way to put this one to bed is just to point out the fact that there are -- there is some language in the SRP that's not entirely consistent with the position that you stated, which I think is a correct position.

MR. PERSINKO: I think what we ought to do is go back and just look at that in this chapter.

One thing also that -- I said hazards analysis and possibly some accident analyses, as well, but I mean I would also expect maybe not to know every detail about every IROF at this stage, but I would expect that major IROFS would be identified.

MR. HASTINGS: We agree.

MR. PERSINKO: Okay.

MR. DAMON: I'm not sure what you meant by not knowing the values of all parameters and stuff, but if you've read the NEI interpretation of general design criteria and stuff like that, it isn't that you actually know what instrument you're going to use but, rather, functionally, what you're trying to accomplish in terms of making something adequately safe, and in that context if the thing is protecting against something that has a quantitative aspect to it, then you do get into quantitative

pieces of information on parameters, like the earthquake, you know, the design basis earthquake that you're going to design to, and things like that, but you're not like obviously getting to individual stresses and individual components or exactly how the thing is configured, it's a design criterion, but having said that, we don't see how you can specify design criteria without telling us basically what the safety features and functions you're trying to accomplish are.

So, in order to do that, you have to identify what hazard you're protecting against, you know, what accidents you're envisioning as happening and how this -- what kind of a device or functional thing you have.

So, it's at that level, you know, you're specifying things.

You're not telling us exactly what kind of equipment, but you might have to tell us that it's the kind of equipment that does a certain function and this is how well it does it and this is why we think it would do it well enough to get a license.

MR. PERSINKO: You may not have to give us exact set-points on equipment or anything like that but some element of quantitative -- like Dennis said, the G level on the earthquakes would be a prime one, so things like that, and I do think, also -- I know I said earlier it is a

reactor document, but I think you ought to look at the proposed reg guide on design basis that's out there now, too, for comment.

MS. THOMAS: Excuse me. This is Ruth again. I wonder if somebody could clarify who this is that's having this conversation back and forth.

MR. PERSINKO: The last two speakers were Dennis Damon from NRC and Drew Persinko from NRC.

MS. THOMAS: It's two NRC people?

MR. PERSINKO: Yes.

MS. THOMAS: Okay. I'm having trouble getting the names, but I'll see the transcript. Anyway, it was between two people in different sections of the NRC?

MR. PERSINKO: It wasn't a debate, though, it was just further discussion.

MS. BRYCE: Okay.

If there are not anymore questions about the ISA section, we'll go ahead and move on to nuclear criticality safety, and the person talking about that is Chris Tripp, and he'll go ahead and summarize some of the comments we've received and briefly talk about our responses, and then, like before, we'll open it up.

MR. TRIPP: Okay.

Most of the comments on Chapter 6 revolved around a couple of issues.

The first one was the level of detail for specifying controls in the ISA summary, because although that was Chapter 5, it flows into a lot of other chapters, including Chapter 6, where they discuss the controls for criticality that were identified as IROFS in the ISA and develops the criteria in more detail, and the basic question was whether it should be specified at the level of the specific controls or the control parameters, and our understanding on that is we try to maintain consistency with the Part 70 SRP and also maintain consistency with the ISA chapter, and it appears that what we're looking for is the actual controls to be specified, though at a level of detail that's -- although the function that's important to safety that's being credited needs to -- should be specified.

In other words, we need to have a sufficient level of detail so the reviewer can make a finding that's an adequate and appropriate choice for control.

So, that was the subject of several comments.

Another comment concerned the use of examples which were apparently used more widespread in this particular chapter than in a lot of chapters, and the intent of the example is not to provide more prescriptive guidance than what's in the chapter text itself but just to provide a possible description of how you might go about meeting that.

It's not really intended to be guidance to the

reviewer saying you should do it this particular way, but it illustrates for a certain hypothetical situation how you might go about resolving that.

So, what we proposed to do is to -- I think there is a value-added to having the comments, and we're not proposing to scale them back significantly but to specify that really the guidance is what's in the text, outside of the comments, and the comments are just there to elucidate the point that's trying to be made for a particular application.

There were several other comments, some inconsistencies that were apparent and that we're attempting to resolve.

One of the other comments -- there were really two comments on this -- was about the preferred design approach, where it was specified that it's preferable to use passive as opposed to active engineered controls, active over administrative, and that favorable geometry was considered the preferable approach, and the main comment we received on that was that it was felt that, although the commitment was to use that approach where it was practical, that the applicant shouldn't have to be tied to that particular scheme, that there had to be flexibility there.

So, what we're really proposing is to have the applicant provide justification for not following the

standard approach where it wasn't used, and if that appears reasonable to us, I think we could go along with that.

Otherwise, it becomes an unverifiable kind of a commitment, and it's not -- it's not easy for us to see how you would go about determining whether you follow that approach or not.

So, everything else is really specific to certain -- really specific and technical, and we could talk about those individually if you have any other major concerns, but those seem to be the overriding themes.

MR. HASTINGS: To follow up on the example that you picked or that you discussed at the end, I think our focus in making that comment was to -- again, sort of similar to some other comments that we'd made -- we want to make sure that the intent is clear that we're obligated to justify what we have picked, as opposed to justifying why we didn't pick the thing we didn't pick.

So, where it's clear to us that passive control is preferred, we shouldn't have to expend a lot of time talking about why we didn't pick passive control, as opposed to justifying why the active control that we did pick in that example is adequate.

I don't think we're terribly far apart on that issue.

MR. TRIPP: Yeah, I wouldn't envision it being

something that would be a very involved kind of a discussion, but this is the sort of thing, I think, where you have to really get into the detailed examples, and I don't know if we'll be able to reach agreement before we see what the design looks like.

MR. HASTINGS: As far as going through the rest of the comments, there are a lot of comments on Chapter 6, and you're correct, a lot of them are very specific.

There are a few that we wanted to discuss briefly and get some clarification on, and the order doesn't imply particular importance of one over another, but one of the comments we made was that the criticality alarming system appears to be discussed in the context of satisfying 7061 performance requirements, and we don't see that as being the case, since 7061 separately precludes criticality.

We can't envision a scenario where criticality alarming would prevent any criticality. There are other measures mandated to prevent criticality.

MR. TRIPP: This is comment number 66?

MR. HASTINGS: Yes.

MR. TRIPP: Yeah. The purpose of an alarm, of course, is not to prevent criticality but to prevent doses to workers following a criticality, for instance from multiple bursts or after-effects.

In this particular comment, the view is made that

having some kind of -- the real issue here is whether the criticality alarm system -- how robust it should be to respond to an event like a fire or some kind of seismic event. At least that's what comment 66 is.

MR. HASTINGS: That's part of it.

The other part is the extent to which criticality alarming is credited in preventing exceeding performance requirements, and that sort of leads you down the slippery slope of crediting things in beyond-design-basis space as IROFS, in which case everything becomes IROFS, which is not where we think you want to go.

MR. TRIPP: Okay.

I wouldn't expect you to be crediting it for criticality prevention at all.

It's more of a -- where criticality is credible, even where you have double-contingency and you have very robust controls, those controls are what you're relying on to prevent the criticality, and the criticality alarm is -- just because you have enough material where there is a potential to have a criticality, even though the chance may be very low, it's still something you want to protect the worker against. It's more of a mitigation effect.

MR. HASTINGS: That's true, but there are lots of things that could fall into that category that would lead you to making many, many things IROFS that wouldn't

otherwise be in strict compliance with 70.61.

Let me clarify. We have no intention of not installing a criticality alarm system. Clearly, that's not our intent. It's sort of a semantic argument about the extent to which criticality monitoring and alarming gets credited in your ISA as preventing or mitigating doses, and since the initiating event is precluded by mandate, also in 70.61, we hadn't intended on spending a lot of time analyzing that accident further.

MR. TRIPP: The criticality accident alarm is kind of a special animal, because it is specifically called out in the regulation.

So, that's the main reason it has to be there and it has to meet certain performance requirements -- dose rate response and so forth, but I would not expect anything that goes to reducing the dose, if you have a criticality, to be credited.

I would expect that mostly what you have credited as IROFS would be the preventative controls.

MR. HASTINGS: Okay. Then we're consistent. I didn't intend to belabor that as long as we did. I just wanted to point it out.

The comment immediately following that is sort of an age-old question about how one demonstrates double-contingency when using geometry control, and there's

perhaps adequate percent out there for how one does that that we don't need to discuss it here, unless you have some particular response you wanted to discuss.

MR. TRIPP: All I would say is there may be some events where you may not have a pathway to criticality or it may be incredible and you can't really establish double-contingency, and a lot of geometry control cases fall into that category.

Typically what I've seen is that you have multiple barriers on the geometry.

You have geometry in some vessel. It's limited diameter, for instance. If that breaks, where does the material go? And then you'd have a second barrier on geometry.

We still consider that double-contingency.

MR. HASTINGS: Okay.

MR. DAMON: This is Dennis Damon.

I detected something in your remarks on the criticality alarm requirement that reminded me that there's a potential or misunderstanding about items relied for safety. It's not the -- I don't think it's the desire of the staff to cause everything in the plant to be identified as an item relied on for safety.

It's the applicant's choice what he's going to choose to define to be an item relied on for safety. In

other words, it's something you've decided you are relying on.

So, you may, in fact, have things in there that may have some safety benefit which you choose not to declare as an item relied on for safety, but then the burden you bear is that, whatever you have chosen, that is all you're going to be credited for, okay?

Now, having said that, I commend to your wisdom the virtue of choosing a design that has a little bit extra in it. In other words, if you have items relied on for safety that go a little bit beyond what's the minimum necessary, it can buy you a number of benefits, if you read the regulations, in terms of what happens -- what's your burden with when one of those things does not function properly or something like that.

So, there is a virtue to having a design that actually is more safe than it actually needs to be, but the choice of items relied on for safety is up to the applicant, and then that's all the staff was going to credit the design with.

The problem the staff usually has had in the past is the applicant did not clearly identify exactly what was being relied on for safety, and then, when it came to a discussion of, well, is this design adequate, there kept being allusions to things that weren't declared that should

be credited.

Our concept here in the ISA is clearly identify and declare each item relied on for safety, and then that will be the basis, that's the design basis there.

MR. HASTINGS: We agree.

MS. BRYCE: Did anyone else have any comments on nuclear criticality safety?

MS. KELLY: Well, I have a comment. This is Mary Kelly.

As a South Carolinian, this whole issue of criticality bothers me a great deal. I have a concern about the accumulation of so much -- in fact, all of this plutonium at the Savannah River site and the fact that we could have a spontaneous criticality accident or we are an incredible target.

So, that's more a comment, I guess, than to analyze exactly your procedure.

MR. TRIPP: Well, I think the intent is that requiring the design to meet with double-contingency sets a pretty high threshold.

The intent is to provide a lot of robustness and defense-in-depth.

Obviously, you can't reduce the probability of a criticality to zero.

There is always some risk where you have

significant quantity of material around, but the idea is to reduce it to a very low level, and that's what we're going to be looking for when we review the application.

MS. KELLY: Well, you've got a very big burden.

MR. TRIPP: Yeah, it's not a trivial task. There's a lot that has to go into it, that's for sure.

MS. THOMAS: I'd like to comment, too, that it's a burden that's been borne by South Carolina and Georgia, and that is something that they have had, this Savannah River site and all the problems there, for -- over all these years, and I don't know -- I'd have to look back at the health section, but the fact that the detrimental impact from radiation exposure is cumulative -- I don't know if there was any -- that that was specifically addressed, but it certainly is of concern to anybody that lives in South Carolina or intends to stay here.

MR. TRIPP: Well, a criticality accident is typically a very localized event. It really doesn't have significant off-site consequences. It's a danger mostly to the workers that are in the immediate vicinity of the material, but certainly we won't authorize the operation of the facility if we are not satisfied that criticality is highly unlikely.

That's a very high burden to meet.

MS. THOMAS: Well, that's comforting to hear.

MS. BRYCE: Are there any other comments on nuclear criticality safety?

MR. HASTINGS: There is one more comment that we made and I just want to emphasize to make sure that the staff is aware that criticality validation reports may not be completed coincident with the construction authorization request.

We don't think that's a problem in terms of the construction authorization per se. We understand that submittal of that kind of information on a timely basis well in advance of the license application is important. It just may not be immediately coincident with the CAR itself.

MR. TRIPP: We understand that, and we talked about the vulnerability if it turns out, based on the results, you can't meet a certain margin that you had designed into the facility.

MR. HASTINGS: I understand.

MR. MICHELSEN: I'd like to point out another instance of this case of what should be in the license application versus the ISA summary, and I think that some of the discussions in 7.4.3.2 and 7.4.3.3 on the criticality accident alarm system -- in fact, the rule says the discussion, I believe, of the criticality accident monitoring meet of -- what is it, 70.24? Is that the criticality accident monitoring section?

The rule says that information should be in the ISA, as opposed to the LA.

MR. PERSINKO: Yeah, it says that it should be in the ISA summary, because the list in the proposed rule said the requirements for criticality monitoring and alarms in 7.24, and it was under the heading of "Information That Demonstrates the Licensee's Compliance With the Performance Requirements, the Requirements of Criticality Monitoring and Alarm, and the Requirements of 70.64," but it was under the ISA summary, you are correct.

MR. CLEMENTS: I had a question.

This is Tom Clements.

What's the relationship between any holdup in process lines that might be an MPC&A issue and criticality? There has been some problems with holdup in, particularly, a MOX plant in Japan, where they had to clean out the lines, and I don't know the risk of criticality with that situation, but there was many tens of kilos of plutonium that was classified as held-up material, not unaccounted for but just held up in the process, and I don't know the relationship between criticality problems.

MR. TRIPP: Well, often, when you have an MC&A concern, you also have a criticality concern, if you have enough material there to sustain a criticality.

It really depends on the controls that are being

relied on to prevent criticality.

If you have a system that's all favorable geometry, it may not be much of a concern at all.

If you're relying on mass, then obviously you'd need to look at the long-term accumulation of mass, and they would typically be things like monitoring, period NDA measurements, you might be required to clean out the system periodically, and we would look at that.

We'd look at the potential for accumulating material, the expected rate of accumulation, in an effort to try to assess the adequacy of the measurements to address that. That would be certainly one of the concerns we'd be looking at.

MS. BRYCE: Okay.

With that, let's move on to our next subject, which is plant systems, and Tim Johnson is going to be speaking to that.

MR. TIM JOHNSON: Thank you, Amy.

I am at kind of a disadvantage here because there were a number of contributors to this section, and some of them couldn't attend this meeting, but I'm going to try to do my best and represent their viewpoints here, but let me kind of summarize some of the -- a couple of the general comments that came through for Chapter 11.

One was comments that we had included a number of

prescriptive recommendations here, and it wasn't clear if those recommendations were all applicable to items that wouldn't necessarily be relied on for safety, and the general comment was -- is that the recommendations should be applicable to items relied on for safety as determined through the integrated safety assessment, and I think, in general, that we do agree with that comment, and we've made the revisions to reflect that, that the information and recommendations here would be assessed based -- through the integrated safety assessment.

Another general comment was that we shouldn't use reactor-based regulatory guides, and in some cases, we have found guidance documents that are not reactor-based, and we've modified the write-ups to reflect that.

In other cases, there really isn't a lot of guidance available to fit the situation, and we still will use reactor-based reg guides.

However, we've caveated it to reflect that it should be used where it's applicable and where it's related to items to be relied on for safety, and in general, we're doing this because we think, in a number of places, these reg guides do offer some good general design practices that we think would be applicable to items relied on for safety.

And then a third general comment was that we should accept plant systems that satisfy 70.61 and 70.64 and

that by itself should be sufficient for us to accept the designs, and I think, conceptually, we agree with that.

However, we are providing some additional information that we feel is good design practice that would be applicable to items relied on for safety.

So, with that, I'll open it up to general comments from DSA or the public.

MR. HASTINGS: I think that -- we acknowledge the difficulty, and as I mentioned in my opening statement, there is not a lot of guidance out there for MOX, so we're sympathetic, and I think the fact that you're going to caveat the discussion with, you know, as appropriate and as applicable will certainly help.

We want to make sure that the staff has an appreciation -- and this is probably going to begin sounding redundant, but bear with me -- that especially when a given guidance document isn't particularly applicable and there are some pieces in it that might be useful but then there are others that are not, we don't think that it's the staff's intent for us to spend a lot of time discussing why we didn't adopt, you know, the two 500-page volumes of NUREG-0800 section by section but, rather, that we explain why we picked the guidance we did pick and that that should be acceptable.

There was one place in particular -- well, there

was some comments on 11451 that didn't make it into our comment section.

I suspect that these have already occurred to you based on the discussion you just had, but --

MR. TIM JOHNSON: 11.4.5.1?

MR. HASTINGS: 11.4.5.1 is -- I think it's on ventilation. Yeah, ventilation systems.

MR. TIM JOHNSON: I'll just say what we've done for ventilation, in general.

There were some regulatory guides in there that were applicable to reactors. We've taken that out, and one of the recommendations was to use an old plutonium reg guide, 3.1.2, that we have put in, and that will be the basis for it.

MR. HASTINGS: That's fine. You saved me a step.

The other major areas of concern were in 11.4.2 and 11.4.3, with respect to electrical standards, and again, the comment was based on the fact that the deterministic criteria didn't give the applicant the opportunity to do risk-informed selection of standards.

It sounds like you've addressed that.

In 11.4.7, there was the citation of ASME 3, which we think is going to present us with some problems. Has that one been changed, as well?

MR. TIM JOHNSON: That's been changed. We've

taken out the reference to ASME 3. We put in the concept that you would evaluate what you need through your ISA, and if that comes out to be ASME section 3, well, so be it. If it's ASME 8, you know, so be it, or power piping or whatever. It would be applicable to what falls out of the integrated safety assessment.

MR. HASTINGS: Okay.

I think that's going to address the vast majority of our comments in that area.

I want to point out, as we indicated in comments 132, 137, and 138, we don't envision an IROFS cooling water system, just as clarification for the staff.

MR. TIM JOHNSON: We understand that comment. We still have that section in there, but again, we've caveated it to be applicable to IROFS, and if that falls out of your integrated safety system, you have some information there; if it doesn't, well, this section won't apply, then.

MS. THOMAS: I have a question. Ruth. What about the plutonium particulate problem? Are there some other types of facilities where the guidance in the operations would be more similar to MOX than a reactor?

MR. TIM JOHNSON: Well, I don't think that the particular problem with plutonium particulates is a problem in nuclear reactors, but obviously, when you're making fuel out of mixed oxides, it would be a problem, and the

ventilation system and the control of those particulates is going to be a critical factor in their design.

Now, the reactor ventilation systems have a little bit different design goals, where they're concerned not only about particulates of fission products but also of iodine, which is the principle nuclide of concern.

So, the problems are a little bit different, but in the case of a MOX fuel fabrication facility, we are very concerned about plutonium particulates, both for worker safety and public safety.

MS. THOMAS: Well, one reason that I mentioned Nuclear Fuel Services and the evidence that was brought out during the licensing for the Allied General plant, that Barnwell nuclear fuel reprocessing plant, was that the particulate problem there was -- evidence was brought out about that and brought out about what happened at Nuclear Fuel Services, and so, it seems like -- but I haven't heard any mention of that type of operation or using guidance from that, and also, I was wondering, certainly when they do the removal of the plutonium from the nuclear weapons, that, it seems, would create a problem, a particulate problem.

MR. TIM JOHNSON: I agree with you that that is something that's going to need to be considered for the pit disassembly facility, but that will not be a part of what our licensing is going to address.

That will be done through DOE.

MS. THOMAS: Well, does that mean that it will not go through the NEPA process? Is that what's being proposed? I guess, going back to that question I had to the order of consideration, that the order is taking things into consideration, the fabrication, before consideration is given to the things that go before it.

MR. TIM JOHNSON: The question had to do with will the other parts of the surplus plutonium disposition program also be done with EISs, etcetera.

MR. JAMIE JOHNSON: With EISs?

MR. TIM JOHNSON: Yes.

In other words, I guess your question, Ruth, if I can try to rephrase it, is are there going to be EISs done for the pit disassembly facility?

MS. THOMAS: Yes, right.

MR. JAMIE JOHNSON: We have completed the EIS for the MOX, the pit, and the immobilization.

The department issued a record of decision in January.

I'm not a NEPA person, and I haven't been following too closely the immobilization project, but I would suspect if there's changes to -- proposed changes to, say, the technology or site-specific analysis that maybe had not been done in light of site selection, that there will be

additional NEPA analysis, as required by law, but I can't say yes or no, there's going to be another EIS.

What we have now is sufficient for where we are at this point in time.

MR. TIM JOHNSON: Does that answer your question? I know it may not satisfy you, but that's the best answer that we can give at this point.

MS. THOMAS: Well, maybe it does, but there happened to be a lot of wind blowing or something going on in the telephone, so I didn't hear what it was, but --

MR. TIM JOHNSON: I think what Jamie Johnson said was that there was an EIS done for the surplus disposition program, and at this point, he couldn't say, because he's not that familiar with all the NEPA implications, as to whether or not additional EISs would be done.

MS. THOMAS: I can't understand why our organization wasn't notified of this, because we would have commented on the environmental impact statement.

You see, we've got the background of having been involved in that Allied General and being involved for, you know, 28 years, and that particular licensing proceeding was never terminated.

I mean, so, we are still -- we thought we were still on the Nuclear Regulatory Commission list of receiving any notices that had to do with --

MR. TIM JOHNSON: I think the Allied General license was a very different licensing action than what we're talking about here, Ruth.

That was for a fuel reprocessing facility. That's going to be very different from this pit disassembly facility that DOE is going to have.

MS. BRYCE: The other thing that you have to consider is that it's the Department of Energy that completed the previous EIS that has to do with all the MOX facilities and that, as the NRC continues on, we're going to be focusing on the MOX fuel fabrication facility but also, to some degree, looking in association -- looking at the cumulative effects of the three facilities at the Savannah River site, and that we are now aware of your interest in the subject matter, and we will certainly be notifying you of any upcoming meetings, especially as they have to do with the NEPA process.

MS. THOMAS: Well, good, and I'm glad that it's going to be taken up, the cumulative -- the whole --

MS. BRYCE: Cumulative impacts are definitely something that we consider as part of an environmental impact statement.

MS. THOMAS: Okay. Well, I'm glad we're on the list, because we certainly want to be involved. Thank you.

MR. TIM JOHNSON: Are there any other comments

related to plant systems?

MS. OLSON: Yes. This is Mary Olson, and sometimes I hate myself. You know, it's no surprise that we're interested in seeing this project halted, but at the same time, I think we're so bored with going after people on Thermolag that I can't help underscoring the need for there being some clear criteria for what is or is not an acceptable fire barrier.

So, I'm wondering what you guys intend to use as guidance in that area. We're particularly concerned, of course, about Thermolag and also the foam penetration seals which have been already demonstrated to be flammable.

MS. BRYCE: Our fire protection engineer, Mary, is out of town this week, and he would be the best person to speak to that comment.

MS. OLSON: Can I have his name and number?

MS. BRYCE: I will -- we'll get in touch with you after the meeting and talk about it, because we were aware of your comment. I just do not have the knowledge to talk about fire protection engineering. So, we'll get back to you on that one.

MS. OLSON: I'd appreciate it. It's one of the rare moments when we're trying to help.

MR. HASTINGS: We admire your honesty.

I have one final comment on Chapter 11, and that

is that this is one specific example where we envision, in our construct of ISA separation from -- ISA summary separation from LA and, as a result, SA summary separation from the CAR, there being very little information, if any, in Chapter 11 of the LA.

We envision the vast majority of system description information going into the ISA summary.

The summary of system discussion, the sort of general familiarity with the plant, will be summarized in Chapter 1, but we'd envision documenting the system descriptions once in the ISA summary.

If that's going to be a tremendous difficulty, we'll obviously need to know that, so we can pursue that. It won't change what we write. Again, it will just change what document it gets put into.

So, we can follow up with that off-line.

MR. TIM JOHNSON: All right. If there are no more questions, I'll turn it back to Amy.

MS. BRYCE: And with that, we're going to move on to human factors engineering, and we have Joel Kramer here from Research, and take it away, Joel.

MR. KRAMER: Thanks, Amy.

I think, basically, what I wanted to characterize is much the same for Chapter 12 on human factors as we just heard at the outset on plant systems, and essentially, the

major general comment was that -- well, actually, DOE's, I think, comment was the most appropriate.

We do not agree with the DCS statement that there is no need for a Chapter 12 on human factors. Basically, we agree, in part, with the DOE view that draft Chapter 12 does not require the same level of HFE review as with power reactors.

Matter of fact, in the proposed version of Chapter 12, section 12.3, the areas of review, part 1, stated that the areas of review should be based on personal activities consistent with the findings of the ISA and the determination of whether an item relied on for safety has special or unique safety significance.

However, that was probably the only place in the write-up that that was said, and we do envision in the revision to Chapter 12 a graded approach commensurate with the complexity and integration and operation of the control systems as appropriate, and so, we're proposing to revise Chapter 12 to more clearly emphasize this particular safety focus.

Essentially, it's a risk-informed approach that would be used, and we would rely on the results of the ISA for proper focus.

Now, there was concern expressed in terms of this is not a reactor, and there was a concern about whether we

would be requiring a NUREG-0700-type control room review and also, you know, other references.

Those references are there for what we hope to be useful information.

As a matter of fact, we'll be adding some newer references, because what we're dealing with at a MOX facility is a highly-automated digital system of instrumentation and control, and there are known to be a number of significant human performance impacts which are negative in nature as a result of the advanced technology, and so, we have some other references that will be added that deal with essentially the advanced technology aspects on human performance.

They're not requirements; they're there as general guidance.

If you look at the generation of NUREG-0700 to start with, it came from non-nuclear. It was adapted to nuclear. Military aerospace systems use this kind of guidance to optimize the human system interfaces wherever they may happen to be.

So, we don't anticipate doing the kinds of things that we've done in reactors. It will be safety-focused, and you know, the applicants will, you know, tell us what it is they find that's important to safety from the integrated safety assessment.

So, throughout, I've added additional words of the nature that I've just indicated that better aims at focusing this, but one thing is for sure, we do not agree that no level of human factors engineering, as proposed by DCS, is appropriate.

MR. HASTINGS: Well, the clarification of safety-based is certainly helpful, and that will help focus the effort.

Can you give me just a brief discussion of why it's appropriate to apply this higher standard to MOX than it is to all of the other fuel cycle facilities, since this same requirement fell out of 1520 entirely?

MR. KRAMER: I can't address the issue as to why it fell out of 1520. Maybe other people can address that.

We did have this chapter in AVLS, essentially again because we were dealing with advanced technology at a higher level with instrumentation and control proliferating, software issues, front of the interface, back of the interface issues, and we think the same issues are of concern for a MOX facility, but I can't answer the question as to why it didn't appear in 1520, and I think, as Drew indicated at the outset this morning, just because, you know, some things that are in this particular proposed Standard Review Plan are different than 1520 doesn't mean that they have to conform to 1520.

MR. PERSINKO: In 1520, it's covered, but it doesn't have its own chapter and it's not covered in as much depth.

In Chapter 3, the ISA chapter in 1520, there are references to human actions, and it was thought that it would be covered there perhaps more generally than what it was or where it is here, but it was covered in Chapter 3 in the sense that a human action could initiate or exacerbate an accident sequence.

So, it's not fair to say that it's completely out of 1520.

MR. HASTINGS: But it certainly doesn't rise to the standard of its own chapter and an entire separate program that, frankly, can be a burden for, arguably, little value-added.

MR. PERSINKO: You made a correct statement. It doesn't have its own chapter. We've covered it in Chapter 3, and we do expect to see discussions, I guess, in 1520 related to human actions, because it is mentioned, as I said, both as an initiator and an exacerbator, but I guess the feeling here was that it warranted a little more discussion than we did in 1520.

MS. BRYCE: I think that, because of the types of controls that you have in I&C and the different type of facility that you have, it merits a closer look by the NRC,

and in this instance, we feel that it's appropriate to address personal actions or activities that you have identified as IROFS in more detail for human factors.

I think Joel would agree with that.

MR. HASTINGS: Well, I don't want to belabor the point.

MR. KRAMER: I think what I'm saying is that, you know, the applicant should, you know, consider it at a level that is appropriate, and I think that, you know, it deserves some special consideration, but it needs to be focused, and you people are the best people to tell us what the important safety-related actions are coming out of the ISA and making certain that the human system interfaces and the training and procedures that are all associated with that are done correctly to ensure that you won't have errors of omission or commission from the human performance standpoint that are going to impact the facility, potentially public health and safety, and with advanced technology, it works the other way, too.

You can have the technology impacting the human performance.

So, hopefully, you guys won't be burdened by doing a complete control room design review to the level of detail that we had required of all reactor licensees, however the NUREG-0700 itself was never made a firm requirement. It was

a guidance document even in those days.

MR. PERSINKO: Also, keep in mind, I think, it's true to say that plant systems -- I think it's true here, too -- depth of a lot of the reviews is guided by the results of your ISA.

Your ISA dictates a lot of how much depth and that kind of thing.

So, even though some of the things may seem prescriptive and deterministic, I mean a lot of it is good information and good guidance, but it's all -- the extent to which you implement it or follow the guidance is determined by the results of your ISA.

MS. BRYCE: Does anybody else have any other comments on human factors?

MS. THOMAS: Ruth Thomas does.

MS. BRYCE: Go ahead, Ruth.

MS. THOMAS: I wanted to say that we support the NRC's position that this chapter is very much needed, and it seems like, looking back in history, it's human error that is often the cause of accidents and major accidents.

Mary, do you have anything to say on that subject?

MS. KELLY: Well, I pretty much would repeat what Ruth has said. I think that this deserves maximum attention and care.

We have too many after-the-fact and

years-after-the-fact evidences of effects on people who have worked in manufacturing operations and people who have been working at Federal nuclear facilities, and it takes years and all kinds of legal maneuverings to even prove that that happened. So, it seems to me, if this is built in at the beginning, that's what we should be doing.

That's my approach.

Thank you.

MR. KRAMER: Thank you for your comments.

MS. BRYCE: If there aren't any other comments, we will move on to our last subject. That would be management measures, and Will Smith from the NRC is going to talk about that, and we'll have Will change places with Joel, so he's close to the phone.

Thank you, Joel.

MR. SMITH: I'm Wilkins Smith. I'm the FCSS Special Projects Branch and reviewed the comments to Chapter 15, management measures.

Those includes the measures for quality assurance, configuration management, maintenance, training and qualification, procedures, audits, and assessments, incident investigations, and records.

We categorized approximately 45 comments regarding Chapter 15 and partially agreed or agreed with approximately two-thirds of those and the other third disagreed, and in

many cases where we disagreed, we went back and looked at the requirements for the wording and made clarifications there, since a question was raised about it.

Some of the overall general comments, a couple of those were discussed this morning, one regarding the classification safety SSCs. The definition of principle SSCs has been added to the chapter sections on QA and configuration management, and those areas have also been reworded to clarify what the requirements are in relation to IROFS and the early design activities.

Another general comment was -- there were several comments regarding the need for a product QA program requirements, and as we discussed this morning, that would be handled by the NRC Office of Nuclear Reactor Regulation and the reactor licensee itself.

A number of the comments were editorial. Approximately 20 of those resulted in changes, improvements to the wording, clarification of it.

Should I go down the individual sections, since they cover several different areas, and highlight some of the major comments as we saw it?

We pretty much discovered quality assurance, and those chapters have been reworded, and the footnote there regarding principle SSCs has been clarified, and in configuration management, the same principle SSC

clarification has been included.

There was one comment regarding -- it's our number 160 -- regarding configuration management baseline policy, and that was stated that -- that questioned the need for implementation and of the requirements in that section.

We disagreed with that comment and agreed that -- we did agree that it was the applicant's responsibility to identify IROFS and that implementation and imposition of requirements for all SSCs is not required by the proposed rule.

The reviewer must evaluate and determine that the applicant's CM system for construction design is appropriate, and the SRP guidance for CM, in particular, would be a review of the applicant's baseline CM policy applicable to all design construction operations, and the staff considers that necessary and appropriate.

MR. HASTINGS: I'm sorry. Which comment was that?

MR. SMITH: That was our number 160. It was regarding section 15.2.3, and that was from DCS.

MR. HASTINGS: And which part of that comment did you disagree with?

MR. SMITH: I think the initial comment was the unqualified use of "all" and independent of the ISA is unduly broad.

MR. HASTINGS: You don't disagree with the comment

that the wording is not entirely accurate.

MR. SMITH: The wording has been clarified that it applies to the IROFS and what have you or principle SSCs.

MR. HASTINGS: It was the "initially independent of the safety assessment of the design basis" that gave us heartburn, primarily. It left one with the impression that CM applied to all SSCs, irrespective of whether they were IROFS or not.

MR. SMITH: Okay. That was not the intent, and the wording should be clarified in the revised version.

There was also, under configuration management, a question stating that walk-downs should not be appropriate or required, and that was in this, configuration management, and also walk-downs were -- the need for those were questioned in the audits and assessments.

In both cases, we left the requirement in there, clarified that it was up to applicant as a part of his normal activities to identify what was required, what techniques to use.

The walk-downs were and are a good tool --

MR. HASTINGS: By example.

MR. SMITH: -- by example. You define how frequent, what systems are required, and document that, as appropriate.

MR. HASTINGS: That's what we had intended.

MR. SMITH: Okay.

Unless there are any questions, I'll move on to the maintenance, where there was one comment regarding, I believe, the construction application, whether the maintenance commitment should be in that.

The staff disagrees and believes that the basic commitment to a maintenance program is needed in the construction application, request for construction approval.

That was comment number 166.

Any further discussion on the maintenance?

[No response.]

MR. SMITH: Training and qualification -- a general comment that it was very detailed and prescriptive, in there that it referred to SAT, the systematic approach to training, certain terms and methodologies were in there regarding that.

We have generally revised that section to remove the more specific SAT-type terms, terminology, and to refer again to the -- based on the safety evaluations, the IROFS, then training and qualification will be applied as appropriate.

And there were some specific qualification statements in there. We have modified those to make them appear less prescriptive and to give better descriptive guidance to the reviewer.

Any questions on the procedures section?

MR. MICHELSEN: That was training.

MR. SMITH: I'm sorry, training, yes.

MS. THOMAS: I had a question. You made those changes because you felt like there needed to be more flexibility?

MR. SMITH: To clarify the requirements both to the applicant and the reviewer as to what he should look at, what the basis for deciding what the training and qualification requirements would be for a particular position or function.

MS. THOMAS: I see. Thank you.

MR. SMITH: Okay.

Regarding procedure, several comments regarding whether specific details such as whether review is required on an annual basis or a two-year basis -- I believe emergency procedures had been specified on a one-year review basis.

That was modified to indicate that that review of emergency procedures should be done initially annually and, as justified based on experience and analysis, could be modified up to two years, guidance in that area, and the clarification that all procedures should be reviewed after major modifications and/or maintenance.

MS. THOMAS: This is Ruth Thomas.

Was this in response to comments from Cogema or someone else?

I mean it seems like, with this type of facility, that it would be justified to have review once a year.

MR. SMITH: The emergency procedures right now in the guidance would be reviewed initially on a annual basis or as appropriate, which would be more frequently than annual.

Based on their experience and on a technical evaluation of it, if they wish -- if they could justify going up to two years for emergency procedures -- this is a routine review.

Whenever the process -- and the words were added -- when a plant or process modification was made, a review, of course, should be done at that point of all applicable procedures not just emergency.

MS. THOMAS: So, in other words, if they were having problems, then it would be more frequently.

MS. BRYCE: Or if they were making changes, right.

MS. THOMAS: Thank you.

MR. SMITH: There was also a question raised, number 182, regarding independent verification methods, and that was clarified -- the terminology was clarified again to what should be required for independent verification of the review and what that should be based on.

Okay.

Any further questions on the procedure, comments?

[No response.]

MR. SMITH: We'll move next to audits and assessments, and the similar comment was in there regarding the walk-downs, and again, it was stated that walk-downs are one tool, one method of doing audits and assessments.

There was also a question regarding the definition and terminology for an audit versus an assessment. The wording was virtually identical in the prior SRP.

It has been modified to identify that audits are a function of the quality assurance organization and assessments are a function of the management, including QA, and at this point we have declined to further narrow those, so that the applicant can decide in his program what he wants to call an audit and how he wants to call an assessment. There's probably 20 or 30 different definitions of those terms, between DOE and other organizations.

Okay.

Any further questions on audits and assessments?

[No response.]

MR. SMITH: The last section that there were comments on is incident investigation, and there were similar number of general changes in that area, or specific changes, again putting in words such as "where applicable"

and then adding clarification, where needed, for what we meant to provide guidance for.

There was also a question in that area of the need for a team. The prior draft had to specify the team for incident investigation.

The word "team" has been left in but also "individual investigations" were put in. The basis for that was also clarified.

And the identification of the process for selection and decision, whether an individual or a team incident investigation was needed, were put in, additional words to clarify.

And the last section, records, there were no comments in that area.

MS. BRYCE: And with that, if anybody has any comments on the last couple of sections to the management measures chapter or if you'd like to ask questions in general about management measures, any of them, go ahead, please feel free.

Is there anyone else who's on the bridge-line? Do you have any questions or comments?

MS. MINERD: Is this the time for the public comments?

MS. BRYCE: In about two minutes.

MS. MINERD: Okay.

MS. OLSON: I have a question. This is Mary Olson.

MS. BRYCE: Sure.

MS. OLSON: Did I miss it? Did we have a section on quality assurance that was specific to the facility?

MS. BRYCE: You're just a little bit late, but we can go back. What specifically would you like to talk about?

MS. OLSON: Well, I think it's really probably all covered in the comments that I made in writing. I just was wondering if we just skipped over it completely, that I was the only commenter on that.

MS. BRYCE: I'm sorry. Which ones in particular?

MS. OLSON: Well, there's a whole section of NUREG-1718 on quality assurance, and I was cut off for a period, trying to get back on the line at one point, so maybe you did cover that, but I haven't heard anything other than the comments that the product quality assurance would be handled by NRR.

MS. BRYCE: Maybe you could go ahead and summarize your comment. We may not have appropriately captured it, and I want to make sure that we understand what your question is.

MS. OLSON: Well, I just feel that this is a very critical area across the board.

I mean just looking at comparable situations in reactors, in dry casks, in transport containers, in Yucca Mountain, I don't care what you name, quality assurance is a basic fundamental issue, and so, I think that it -- you know, in my mind it's not only something that has to do with the construction of the facility but an ongoing commitment to its operation and then, of course, my concerns about the product, as well.

MS. BRYCE: I think that we would agree with you in full, that in fact for the MOX facility, we actually have more specific requirements about how they need to address quality assurance, that the rule states that the NRC is going to be reviewing quality assurance in accordance with Appendix B to Part 50, which is effectively the same standards that reactor facilities are organized by.

In terms of product quality, we've addressed that to the extent that we're able to at this time, and we'll be getting back to you with people in NRR and how things will be developing.

MS. OLSON: Right. I guess my question right now is there was -- I'm glad you agree with me, but there was no discussion of it in a broader context, and I guess I'm just querying, did I miss it?

MS. BRYCE: Because your comment is -- I'm not sure how to say it. We agree with your comment,

effectively, and we think that we've got quality assurance at a high level of detail, so we're not sure how much more we should discuss it.

MR. SMITH: The SRP has a chapter section specifically for quality assurance.

MS. OLSON: Right. And today we were going section by section, and so, I was just curious as to whether there was just kind of zero discussion of this issue.

MR. SMITH: We had discussion this morning regarding several quality assurance issues, and this afternoon. We discussed the product versus the Part 70 and safety requirements.

MS. OLSON: Right.

MR. SMITH: We discussed the principle safety systems and components, and we discussed how they would be -- how the design control would apply for this project and how the construction and other submittals would be reviewed.

MS. OLSON: Yes, ultimately it is all quality assurance, you're right.

MR. SMITH: I agree with you. I've been in QA for 34 years now, in one form or another.

MS. OLSON: Okay.

I just was curious because it is a chapter in the NUREG-1718, and in other arenas, there were comments back and forth between the licensee and NRC, and I just, you know

-- I can understand that it's been addressed in these separate arenas, but I was curious whether I had missed the specific section on it.

So, I understand that I have not.

MS. BRYCE: Right. I think we've pretty much covered everything.

If there aren't any other comments on management measures, we're going to lead into the public comments and the wrap-up, and I'm going to transfer back to Drew to lead the public comments.

MR. PERSINKO: Okay. Thanks a lot, Amy.

At this point, we've allowed time for members of the public attending or via the bridge-line to make comments concerning what they have heard today and other things that they may wish to speak about, but we've allotted, oh, approximately 30 minutes for that.

First I'll see, anybody in the room, members of the public, any public comments? Anybody?

MR. HASTINGS: I've got a couple of follow-up things, but I can wait.

MR. PERSINKO: Anybody on the bridge-line? This is the time for the public comments.

MS. MINERD: Yes, I'd like to say something. This is Leslie Minerd.

MR. PERSINKO: Okay.

MS. MINERD: Okay.

First of all, I live in Columbia, South Carolina, and I feel that the reason this is happening in South Carolina is because, as many of you probably know, we're the least educated and poorest state in the Nation, and I was going to point out that, geologically, SRP is not the place for any MOX or nuclear facility.

It has a very high water table. It's located on a fault line, the same fault line connected with Charleston, if you're familiar with that earthquake about 100 years ago, and actually, there was an earthquake in South Carolina last year. I felt it. Not the same fault line, but it's close.

And I do feel that it is very undemocratic to plan the next public hearing in the town of Akin. The cheerleaders that always testify there have a vested interest in seeing another nuclear facility built in South Carolina.

I personally would not live near Akin for fear of having my house burnt down or something like that, and if you were going to really do something democratic, you'd have the public hearing in Columbia, not in the lap of those who are going to monetarily gain by the construction of this new facility.

Also, Columbia is centrally located between the place you're going to build the MOX facility and the place

where they're going to burn it, which is Rock Hill in Charlotte.

That's all I have to say.

MS. KELLY: This is Mary Kelly with the League of Women Voters.

I would like to reinforce the idea that a meeting needs to be held in Columbia.

I have sent a letter to the Commissioner, also a copy of comments I made about the last major public hearing that was held in Akin, so you can understand what the problem is.

It just was not -- it was a meeting of 600 people who wanted anything and everything that can be brought to that area.

However, if you want people who -- people should be free to speak. The meeting was intimidating for those of us who had anything that was questioning or just not quite the party line.

So, I do think you need to give very serious consideration to the location of the meeting. If you're going to have one in Akin, you need to have another one someplace else within the state.

But I do appreciate the fact that you have had this telephone line available, and I've been rather well impressed with the nature of the proceedings and what is

obviously your commitment to doing a good job, and thank you.

MR. PERSINKO: Thank you.

We haven't fixed the location yet, but we'll be discussing it here internally at the NRC, and we'll notify everybody involved.

MS. GALLOWAY: And your suggestion to have two public meetings is one we'll take under consideration, as well. That may work quite well.

MS. THOMAS: This is Ruth Thomas, and I wanted to express my appreciation, as well, and certainly want to thank all of you for having this meeting, and then, too, I wanted to also comment on the idea of having a meeting here in Columbia.

Mention was made of having it in the summertime. That's not a good time for most people in South Carolina, and if you've visited here in the summertime, you know why. It's very hot, and a lot of people are on vacation.

So, if possible, we'd like to have consideration given to a cooler time, and then some of the other questions that I had, most of them related to decision-making, and that is the primary concern of our organization, that decisions be based on as much evidence as possible, and too, I'm glad that Leslie brought up the issue of the geology of the Savannah River site as being -- well, even as far back

in the '50s and '60s, the National Academy of Sciences concluded that it was not a suitable place to have nuclear operations taking place, and of course, it's even less of a place for such things to continue.

Thank you very much for your help.

MR. PERSINKO: Thank you very much, Ruth. We'll take your comments under consideration, as well, about the meeting.

One thing I want to say in response to some of the comments -- we'll cover this at a future meeting at the site, but the NRC's role in this does not have -- we have nothing to do with the selection of the MOX facility.

The NRC's role is to review the application that we've received and to assure that the NRC's regulations are met, and that's our role in this proceeding, in this issue.

Thank you very much for your comments.

MS. OLSON: I'm still waiting.

MS. BRYCE: Yes, Mary, do you have any comments?

MS. OLSON: Yes.

Again, I would reiterate the appreciation that we were able to attend, even though we were not in Rockville. I appreciate NRC's decision to come to the southeast for a meeting, and since it sounds like that meeting is intended to be a broad public meeting, I think it's vitally important that it be held in Columbia. Well, I suppose Atlanta would

be an alternative, but since Ruth and Environmentalists, Inc., have already become very involved in this process, I would support Columbia over Atlanta.

But my own knowledge of this area is that workers do not manifestly represent the general public, and I think it's very, very important for everybody involved that this process be more open.

In that regard, I would like to register that I was a commenter and received absolutely no notification of this meeting.

I don't know -- you know, clearly there's an e-mail list-serve that I can get on today, and I'm glad to hear of that, but it was a bit startling to me to hear that there was a public meeting and there had been no effort to reach me by snail-mail, e-mail, or fax, whereas all those were on my comments.

MS. BRYCE: Mary, I sent out e-mail notifications to all the external addresses that I had to the NRC, which included one for NIRS, which means that somehow there must have been a jumble in terms of the e-mail address.

So, what I'd like to ask people on the bridge-line to do, so that we don't have this problem again -- I'll forward you a copy of the notice I sent.

I'd like to ask you guys to just hang on the line after the meeting concludes, and I'm going to call back into

the bridge-line and just talk to you a regular phone, not a speaker-phone, to make sure that I've got the correct e-mails for everybody.

MS. OLSON: I appreciate it.

MS. BRYCE: I apologize that the e-mail notice didn't get to you. It bounced from some of the DCS people, as well. So, we'll see what happens.

MR. HASTINGS: Did you have "I Love You" in the subject line?

MS. OLSON: And in that regard, you know, I appreciate the candor that I just heard from NRC that, in fact, there's no decision-making in your minds about the wordiness of this project.

In other words, NRC's sole responsibility, in your mind, is to license this facility, and yet, I believe that, under all of the statutes that set up the agency, it is the agency's job to weigh and distinguish on the basis of the public health and safety, you know, all of the nuclear program in the commercial arena, and just because this is a project that straddles the commercial arena and DOE did their programmatic EIS and now they've let a contract does not, in the public's mind, in the issue of the ultimate health and safety impacts, mean that the NRC has a legitimate basis for licensing.

So, I am not necessarily saying that this SRP is

inadequate, but I do think that the whole overall dimension is flawed, because certainly this program should encompass the entire operation of the facility if it is to be NRC-licensed, and if not, then it should become abundantly clear that DOE's wordiness as a clean-up agent and its ability to get money from the U.S. coffers for cleanup is not adequate.

So, I have a deep concern about the way in which, you know, on the one hand this is a generic SRP, on the other hand it's specific to this one facility at Savannah River site, on the one hand this is being licensed by NRC but, oops, it goes out of NRC's hands the minute the contract ends. I mean this is a bucket full of holes.

I just wanted to let you know that I appreciate the care and attention to detail, but the big picture is still really, really fuzzy here, and it's going to be a process of getting it clarified.

Thank you.

MS. THOMAS: Well, I wanted to support Mary in what she said, and Environmentalists, Inc., would like to have the Nuclear Regulatory Commission's role clarified in relation to this project, because it -- well, I just agree with everything she said, and she said it much better than I could.

Thank you, Mary.

MR. PERSINKO: Thank you very much.

Are there any other comments by participants at the table, other stakeholders?

MR. HASTINGS: Yeah. This is Peter Hastings.

We note that fire protection wasn't part of the meeting, for obvious reasons, the fire protection reviewer isn't available, and we only want to point out that, similar to the discussions we had on Chapter 11, there are some reactor standards specified in Chapter 7 and in Appendix C that we think aren't applicable.

We hope and presume that the staff is taking the same position on those standards as they took on similar standards in Chapter 11, because we think the need to risk-inform those requirements is just as important.

The FHA and ISA, not a prescriptive standard, especially one based on reactors, should determine the need for requirements in that area.

That having been said, there are a couple of items that I want to point out that we didn't really discuss, and they're details.

One is that, in comment 194 -- and we did send a follow-up message on this. I just want to make sure that it got heard.

MS. BRYCE: Oh, it did.

MR. HASTINGS: Okay. Good. We left a word out,

and it only fundamentally changed the comment, so it's no big deal.

The second was a question of clarification that we should have discussed earlier and I missed it, and that is the requirement to evaluate and document both unmitigated and mitigated events, and I think we made the comment at least once, maybe a couple of times, that in many cases, especially when one is dealing with plutonium, there's no great mystery involved in the impacts of an unmitigated release.

So, we don't intend to expend a lot of energy evaluating the unmitigated release; we'll just accept by fiat that some of the things that we do to confine plutonium are, in fact, IROFS, and we assume that will meet with the staff's concurrence, that we don't have to spend a lot of energy stating the obvious.

There are two issues, I think, that we left sort of a little bit open in terms of the path forward, and I think the answer on both of them is to see what the next revision of the SRP looks like, and those are in the areas of the specificity of likelihood thresholds in ISA space, and the second is the level of discussion of particular items in the ISA summary as compared with the LA, and I'm not sure we entirely got to closure on that, but again, the substance of what's required to be documented I don't think

anybody questions, it's just a matter -- semantic matter of which document gets put into, and closing with the staff on their expectations so that we don't end up with duplication and redundancy between one document and the next. So, we'll continue to follow up with that.

Having said all of that, DCS again very much appreciates the effort to have this meeting. We think that we've gotten a lot of clarification on most of the issues. Again, we applaud and acknowledge the staff's efforts in this area and in Part 70 and in NUREG-1520, and we look forward to continuing to work with you towards successful resolution of these issues.

MR. JAMIE JOHNSON: We appreciate all your time, and I think DOE is obviously confident that this will continue forward.

We obviously support DCS in their efforts, and we're also available, too, to help you out if you have a need, further questions, to answer any questions you may have.

MR. PERSINKO: Okay.

MS. GALLOWAY: I just wanted to say a few things in closing.

We think this has been a very productive meeting, as well.

We think it's a good opportunity for the staff to

give members of the public some idea of where we're coming out in the development, which is continuing, of this SRP, and that has been very successful.

We've gotten a lot of things out on the table, and we've also had an opportunity to hear views of DCS and other members of the public, and that's very valuable to us.

I want to make sure that everybody understands that NRC considers its role in this, in developing this SRP, as very important, and we take it very seriously, and we want to do the best possible job to have the best guidance available to our staff when it comes to reviewing this license application that we're anticipating for the MOX facility.

When it comes to the various comments that we've received on the SRP, I want to make it clear that, while, in the end, we may not agree -- and I'm sure we're not going to agree with every comment we've received, but each and every one of them has received full consideration.

We have discussed many of them internally. We have looked at them thoroughly. In some cases, we've looked at them from a team approach.

So, we've made every effort to give them the full consideration they deserve, and so, even if the end point is not where you want it to be, I can assure you we did not give short shrift to any of the comments received by any

stakeholder involved in the process.

I also want to mention that, while the meeting today came about in development fairly late, you know, maybe about a week or so ago, much later than we like, we are very glad that we were able to establish this bridge-line and that Ruth and Mary and Mary Olson and Leslie were able to participate.

We consider this type of participation by members of the public to be very constructive and something that we want to encourage throughout the MOX process.

As we are getting more into this process with the application intended this fall, we're going to be stepping up quite a bit our engaging members of the public.

We've already talked about plans for a public meeting. We will continue to work out those details and keep you informed, and we appreciate very much your taking the time to spend with us here today as we discuss the development of this Standard Review Plan.

That's all I have.

MR. PERSINKO: Okay.

Once again, I'd like to thank all the stakeholders for attending.

The next step in the process is that we will factor in the comments, as well as the discussions today, into the next version, a second draft of the Standard Review

Plan, the NUREG-1718.

Transcripts will be available from this meeting shortly after -- in a few days, and we will notify everybody of their availability.

MS. BRYCE: And if the people on the bridge-line could hang on for just a minute, I'll call back in in about 30 seconds.

MR. PERSINKO: Thank you.

[Whereupon, at 3:54 p.m., the meeting was concluded.]