UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING ON PROPOSED RULE

CHANGE TO 10 CFR PART 70

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U.S. NRC TWFN Courtroom, Room 3B45 11545 Rockville Pike Rockville, MD

Tuesday, March 23, 1999

The above-entitled meeting commenced, pursuant to notice at 9:30 a.m.

P R O C E E D I N G S

[9:30 a.m.]

MR. SHERR: Good morning, welcome. If there is anyone here who doesn't know, I'm Fred Sherr. I'm Chief of the Regulatory International Safeguards Branch, still as of this week. The purpose of today's meeting is to again provide an opportunity to further discuss amendments to 10 CFR Part 10 to place the regulations on a more risk-informed basis. The specific focus of today's meeting will be on the revised draft proposed rule language and the SRP positions and language that have been posted on the web site. As I mentioned when you first came in the room, that in the blue packet that you all have, there are copies of that language that has been posted.

Now, the objective of the meeting will be to identify the degree to which concerns have been addressed by identifying and clarifying any residual concerns and differences. Inside the packet is the agenda for today's meeting. As noted, after a brief update on the NRC activities since last public meeting, which was in January, we will first address the rule language and then address language and issues relating to the SRP.

For the rule-related discussion, I will cover the entirety of the rule language at one time. NRC staff will make a presentation on the changes that have been made in the rule language to address public comments, and that will be followed by industry comments on the draft proposed rule language, followed by an NEI, industry and NRC discussion, and then, for other attendees, any comments they want to make at that time.

For the SRP-related discussion, we'll pursue the same approach, but we'll do that by sub-topic, where the topics will be covered in the order that they were addressed in the November 25 NEI letter.

Perhaps before we start, the participants could introduce themselves.

MR. BECKEREL: I'm Bob Beckerel. I'm just here to listen and intervene as necessary.

MR. SHERR: It won't be necessary.

MS TEN EYCK: I'm Liz Ten Eyck, Director of the Division of Fuel Cycle Safety and Safeguards.

MR. LEWIS: I'm Rob Lewis, Division of Fuel Cycle Safety and Safeguards.

MS. ASTWOOD: Heather Astwood, Division of Fuel Cycle Safety and Safeguards.

MR. PERSINKO: Drew Persinko, Fuel Cycle Safety and Safeguards.

MR. COMFORT: Gary Comfort, Fuel Cycle Safety and Safeguards.

MR. C. VAUGHAN: Charlie Vaughan, GE Nuclear Energy.

MR. GOODWIN: Wilbur Goodwin, Westinghouse Electric Company, Columbia, South Carolina.

MR. KILLAR: Felix Killar, Nuclear Energy Institute.

MR. FARRELL: Clifton Farrell, Nuclear Energy Institute.

MR. SCHILTHELM: Steve Schilthelm, BWX Technologies.

MR. SHARKEY: Bill Sharkey, ABB Combustion Engineering, Hematite, Missouri.

MR. VAUGHAN: I'm Ray Vaughan, Siemen's Power.

MR. SHERR: There's a seat up here. Anybody else want to come up? We've made arrangements for two days of meetings, if needed, and in the past, our experience has been that we haven't needed the full days.

Just a reminder. It's the usual restrictions in terms of no smoking or eating or drinking in the room here. As far as restrooms go, as far as I know, the best way is to go out, pass the elevators, and the women's room is on the right and the men's room is on the left.

Also, as you know, this meeting is being recorded. So, please, when you speak, speak into the microphone, so Rocky can take all the important words that you have to say. I've noticed that

there aren't microphones in the back of the room, so when we get to the point of other participants, other attendees, perhaps you'll need to come forward and use the microphones up here.

Are there any questions or comments before we begin?

Now, we will begin with the first agenda item, which is a brief update, since our last public meeting, and Drew Persinko is going to cover it.

MR. PERSINKO: I'll just stay right here where I can speak into the microphone. We had our last meeting in January, January 13th. The subject was criticality, nuclear criticality safety. Since that meeting, the Nuclear Energy Institute has provided six letters to the NRC pertaining to Part 70. Comments were provided on reporting requirements, change mechanisms, baseline design criteria, a markup of the SRP Chapter 5 on nuclear criticality was submitted.

Comments were also provided on the Section 70.60 and 70.62, having to do with performance requirements in the rule, and, also, some additional comments on criticality. A letter was provided on the subject of back-fit. A markup of SRP Chapter 6 on chem hazards was provided.

A letter on the subject of the NRC interaction on OSHA, with OSHA, and NEI's view on that. Other comments were submitted on the web site, as well as through letter, from Los Alamos National Labs, Lawrence Livermore National Labs, BWX Technology, and U.S. Enrichment Corporation.

NRC has reviewed all the comments, all the letters that have been submitted. We've revised -- the first thing we did after our meeting last was to revise the rule for the nuclear criticality safety based on the results of that meeting. Then after that, we posted the entire revised rule to address all comments that were submitted. We did that in two postings. We did it -- we had one posting for the entire rule, except for reporting requirements, and then within about a week after that, we posted the reporting requirements. So between the two postings, the entire rule is now on the web site, the draft proposed rule. We've also revised and posted the SRP chapter on decommissioning and the SRP chapter on nuclear criticality safety. In addition to that, we posted our responses to the SRP questions, the letter, the 11/25 letter that was submitted by NEI. We didn't, except for the criticality and decommissioning, we didn't revise the chapters completely yet, but in that posting, we described how we intend to address the comments and how we intend to revise the SRP chapters. We feel that we've been responsive to all the comments we have received. In some cases, there may be differences of opinions that were submitted and we attempted to best address those, but we feel we've been responsive to the comments and in most cases, we've incorporated the comments that were provided. In those few cases where we haven't, we feel that we have a sound reasoning for not accepting the comment. And with that, we'll begin with our discussion of the rule language and I'll turn it over to Rob Lewis.

MR. LEWIS: I'm Rob Lewis. I don't have a very loud voice, to start with, so if it doesn't project, let me know. What we intend to do is take you on a section-by-section walk-through of the new subpart that we're adding to the rule and this subpart reflects the only substantive changes we're

making to the rule. All the changes to the other sections of the rule are minor editorial nature or are covered by -- otherwise by being moved to the subpart, like requirements on plutonium facilities are moved into this subpart. I will speak to the first four of these bullets and I'll turn it over to Heather and she'll speak to the second set, which is 70.65 and 70.72, and then Drew will speak last about 70.74, and then we'll have a discussion period.

As we go, we'll discuss any definitions that are in 70.4 that a necessary and are referenced in each of these sections. Let me mention one last thing. It's an over-simplification, but it may be useful. When you see a number that's 70.60-something, it's something that applies before licensing or during licensing, and would be part of the standard review plan review. When you see a number that's 70.70-something, the way we have it structured is that those are things that occur after you get the license in and reporting and changing anything that was in the license. I threw together some of the characteristics of the draft rule by way of background. We are, as I just mentioned, addressing pre-licensing and post-licensing issues. Our major goal is to make the rule performance-based. We recently got a Commission SRM that described -- a white paper, they called it, that described what they mean by risk-informed and performance-based and risk-based and so on. And I read through that and I think what we're doing in the rule and what we posted on the web matches fairly well with that document and, of course, it's only my opinion, but I think we're in good shape there.

An important point that's often overlooked is anything we're doing with this new subpart is only with respect to accident protection. Part 20, in normal operation considerations, are not being changed by this rule, and whenever we say the performance requirements, the ISA management measures, we're always implicitly assuming that those are only in terms of what's needed to do to prevent or mitigate accidents at the plant. So there's a lot of procedures and training requirements that are in Part 19 and procedures that are required by Part 20 that are not really management measures in the true sense of this rule, because this rule defines management measure only terms of the ISA in the accident study. The rest of those bullets are self-explanatory and I'll move on.

Now we get into the section-by-section look. The first section is a new section. There's a slide missing there, Ted. 70.60 we've added. It used to be the performance requirements in the SECY paper and in the original web posting, but we've renumbered the performance requirements in the SECY paper and in the original web posting. But we've renumbered the performance requirements to 70.61 and we added this applicability section, because in the previous versions, this was all there, but it was buried, and each section of the subpart had to reference that applicability paragraph, and it added some confusion. So as a matter of clear writing, we put the applicability right up front. The only thing that we've changed on the applicability are the two bullets that are starred. The first one is fabrication of uranium fuel or fuel assemblies. The reading used to be fabrication of uranium fuel. We added "or fuel assemblies" to be accurate, because fabrication of uranium fuel may be interpreted to only mean fabrication of the pellets. And the last starred item, decommissioning of facilities used for these activities, we added that phrase based on a deletion of the previous entire section we had that required decommissioning ISAs. We agreed with the comment that NEI made that that could be interpreted to mean a separate ISA is required for decommissioning, and we never intended that, but we think by just adding this simple phrase in this list of applicability, that we're consistent with the logic

presented by NEI in that comment. Now we're into the performance requirements, which is really the keystone of the rule. There's three performance requirements in 70.61 now and the biggest change from the versions you've seen in the past is that the criticality has been separated into a third and equivalent separate performance requirement. And we use the words directly from the ANSI standard, that all processes must be sub-critical for normal and credible abnormal conditions. The two other performance requirements we've reworded to make it clear that they're risk-based -- sorry -- risk-informed and by that we mean it's acceptable to either limit the consequences or limit the likelihood of accident sequences that lead to those conditions. And I won't get into the numbers. We also eliminated the reference, the explicit reference to the ERPG or AEGL standards and, in addition, the appendix that had the actual numbers from those standards in there, we have adopted this equivalent qualitative language that a chemical-caused fatality has to be highly unlikely. For example, it says the same thing, for all intents and purposes, as ERPG-3 says. An important part of this section is that it uses the terms highly unlikely, unlikely and credible. These likelihood terms need to be quantified somewhere. They can't be just qualitative. You can't have a risk-informed rule without defining or quantifying the risk levels that are acceptable. You can't define the risk levels without defining a probability. And as we had mentioned before, we plan to have guidance in the SRP as to what we mean by those terms, but we've also added a section, which Heather will talk about, in the ISA summary that's submitted. We're allowing licensees to propose what they mean by those terms. We're not allowing it. We require that licensees identify what they mean by those terms. And we think that's an important change because it makes it clear that the numbers we're putting in the SRP are truly only guidance. One last point I need to make on this slide. People often talk about high risk events and intermediate risk events and higher risk events and so on. In our view, high risk event means any event that exceeds one of these performance requirements, any of the three is high risk, because we are allowing the probability of the intermediate consequence events to be higher. So on a risk basis, each of these three is equivalent. I won't say the risk is equal; numerically, it's not equal. But they are equivalent and exceeding any of these is a high-risk situation. There's a term used, controlled site boundary, which is where we define the public and I will speak about that in a moment. It's been an issue that's resulted in comments.

Next slide, please. We recently received a letter on the chemical standards that appear in the rule in NEI that basically says that the issue is resolved, in their view. We appreciate that letter and it allows us to move forward with writing the SECY paper language. And just for completeness and the public people that may not be aware of it, we've limited your chemical view, NRC's chemical view in this rule to licensed material, the chemical effects of license material and the chemical effects of chemicals produced from licensed material; for example, the accident that occurred at Sequoyah Fuels, the hydrogen fluoride release. For any other chemical effects, we defer to OSHA or EPA as appropriate and this is consistent with the MOU and implements fully our Atomic Energy Act authorities.

The last thing that the performance requirements section does, it establishes the meaning of items relied on for safety. And what that means to us is any item relied on for safety must be identified if it is taken credit for in the ISA and once you identify it, you apply management measures to make sure that it's available and reliable when needed in the context of the performance

requirements. So if it's listed in the ISA, it's an item, whether it's an administrative control, an engineered control, or a system of such controls. The first slide of comment disposition I spoke to as we worked through. These three I've already discussed, so I'll skip over them, with the exception that we did receive a letter from OSHA and we received NEI's response to that letter from OSHA. What we plan to do at this point is raise those issues to the Commission as a policy level. We've had some discussions with OSHA and the best thing we can think to do at this point is to raise the issues they've raised to the Commission and implement our Atomic Energy Act authorities as the MOU defines, implement them fully.

The next slide shows the comments I really didn't really talk about as I walked through. We accepted the comments made by NEI that when we defined what an item relied on for safety is in this 76.61(e), we should add "or control system," because each engineered control or administrative control must be an item relied on for safety. We acknowledged that an item relied on for safety can be an aggregate of several engineered controls. It's just whatever is identified in the ISA is the item itself. So we agreed with that. We added that term. And we added "when needed in the context of the performance requirements;" when needed to denote that it's not always required to be operable and, in the context of the performance requirements, was added to indicate we're interested only in the safety function of the item, not the production function, if it has one.

There is a comment that we didn't add. NEI wanted us to add a definition of administrative control and engineered control to the rule and they wanted that definition to match the ANSI standards, and for criticality. We didn't do that for the reason that the specific example I have, the fire protection standards, the NFPA standards use administrative control in a context that's different than we're using it in the rule. In the rule, we're using administrative control as the human action that prevents the accident, whereas management measures that would support that action would include procedures and all the assurance and training and so on. The NFPA standards use administrative control to mean the actual procedures and quality assurance and training. So the NFPA standard uses administrative control equivalent to our use of management measures. So there is some confusion and our recommendation would be to define those terms in each of the SRP chapters or in the SRP chapters for fire protection, that the standard is using that term in a different meaning than the rule, and make it clear to the applicant and reviewer what the rule requires. One web site comment was submitted and also a comment submitted by a letter, by USEC, I believe. They wanted the control site boundary wording changed to control barrier to match Part 20. We consciously chose the words controlled site boundary to mean the physical barrier surrounding the facility because of the nature of people that can frequent the area outside of that physical barrier. And we disagree with this comment. We give quite a detailed explanation why we disagree with it in the release notes, so I won't dwell on it here. But we can discuss it later, if that's in anybody's interest. We're going to refer -- as a policy matter, we're going to refer to the Commission that we keep the language controlled site boundary.

Now I'm moving on to the 70.62 requirements. The important thing on this slide is that 70.62, as it's written now, specifies the information that's on-site. Never submitted to NRC. And 70.65, which Heather will speak about in a moment, specifies the information that's submitted to NRC. That's a subtle issue. It doesn't really come out when you read the rule language, but that's the

way it's structured and the Federal Register notice will point people in that direction, that that's how we intend these sections to be interpreted. So there's three elements to the safety program; the process safety information, which mirrors OSHA's process safety information requirements in a little less detail; there's the integrated safety analysis, which is maintained on-site; and, there is the definition and identification of management measures which are retained on-site. There is a section in 70.62(a), too, I think, that requires you to retain records to demonstrate compliance with 70.62, which basically is the record to keep the ISA current and the management measures current. The last bullet just describes the process safety information, first element of the safety program, and I will move on to the next slide.

The big part of the safety program, of course, is the ISA. What we've done in the ISA section is we've codified the MOU, areas of NRC responsibility. We listed six things the ISA needs to do. The first three are identify hazards of various types, which match the first three elements of the MOU, with OSHA. The second three are identify accident sequences, identify the consequences and likelihood of those accidents, and the assumptions you use to arrive at the consequence if you used a particular dispersion model, for example; and, identify the controls and document the assumptions and basis of those controls. What we're aiming for there is at any point in the future, it should be -- the controls that you've identified in the ISA and the reasons why you identified those controls should be able to be reconstructed, if you're making a change to the control, to see if the change affects the control. I guess they can't hear in the back. I'm talking into the microphone. I don't know if it's on. I guess it's on. As I said, the main goal of the ISA is to have the analysis documented so that at a later date, you can determine if any changes you are making are affecting the safety base of the facility. There is a section in 70.62 that specifies the ISA team qualifications and we took an NEI comment in that area. We agreed with it. It doesn't always have to be employees that perform the ISA contractor person -- personnel can be a part of the ISA team. There is a final section on ISA in 70.62 which specifies the timing for ISA completion. It basically gives a four-year period during which the ISAs for existing facilities should be completed and documented. The ISA summary would be submitted to NRC and all the unacceptable vulnerabilities, which is a term that's now been changed, were corrected. The final slide is the management measures. This is the third element of the safety program. We've reduced the management measures that are in the rule that we posted on March 1, and there is no longer a detailed list of everything a management measures -- every type of management measure that has to be applied. The goal of the management measures is to provide continuing assurance of compliance with the performance requirements. That means that any given point in time, the facility will be in compliance with the performance requirements, both the consequences and the likelihood being considered. The management measures would say, for example, that if a certain item relied on for safety is inoperable, then a condition of operation would have to be instituted that would continue to allow the facility to continue to meet the performance requirements. We've included the concept of grading. We allow grading, but we don't require grading. By that, we mean that anybody could apply the highest QA, for example, to all the items relied on for safety or they could grade it commensurate with the reduction of risk attributable to that item. And we added definitions because it seemed to us that a lot of people didn't understand what we were meaning by management measures. We added a definition of management measures. We added a definition of available and reliable to perform their function when needed, and those two

definitions, I think, really clarify what we mean by management measures and what we mean -- opposed to administrative controls, for example, which people often confuse those two. Insofar as the comments, there were no comments in 70.62 that we did not incorporate or that we disagreed with. Although in some cases we might have adopted some slightly different wording, but a lot of that can be attributed to NEI commenting on the SECY paper version and some of the terminology we're using is evolved. So we just adopted the current terms. The ISA revalidation paragraph, we agree with the logic NEI presented in their letter and we've deleted that, and we explained in the release notes why we agree with the logic and basically that requirement was parroted from OSHA's requirements. OSHA's process safety management role requires the process hazard analysis to be updated every five years and revalidated every five years. But our document is updated on a continuing basis. So there is no need to revalidate it at any time. And it receives NRC review, in addition to being updated currently. Decommissioning ISA paragraph was removed, which I mentioned before. The prescriptive list of management measures was removed. We changed the term "unacceptable vulnerability" to unacceptable performance deficiencies, employee-to-person and compliance plan-to-plan, as a semantic matter. We moved to requirements for preliminary ISA and the requirements that pertain to submitting anything to NRC out of this Section 70.62. The goal is that this section would only be all the information retained on-site and didn't ever get into things that are submitted or not submitted or things that are not really part of the safety program, the preliminary ISA being an example. It's not part of the safety program. And the list of effective facility I already spoke about. We moved that to the front of the subpart. Okay. 70.60, .61 and .62 are something you've seen for quite a while. 70.64 is something you haven't seen since the SECY paper. We revised this based on the discussions at the December 4 public meeting and the December 22 NEI letter. As a result, we -- as far as the preliminary ISA, what used to be called preliminary ISA we've renamed the preliminary hazard analysis. We require it to be submitted, but not approved, and it's a licensing tool that stresses the use of design controls over administrative controls, for example, and it stresses defense-in-depth philosophies. The baseline design criteria is the same with only minor changes from the SECY paper version and we added the definition of what a new process at a new facility means -- I'm sorry -- a new process at an existing facility means, because that was a nebulous term that often got confused with the changes that are performed under 70.72. What we intend it to mean by new processes at existing facility were major changes in the facility design, such as changing from a gaseous diffusion enriched fuel to an avlis enriched fuel or adding a third processing line that may or may not be a completely new building. We're only speaking to major changes, so we defined them in terms of the systems level changes or facility level changes. We've since got a comment that those words might not be the best words either. So we're trying to capture our meaning still in this section, in this definition, and we would appreciate any suggestions that would accomplish that. As far as the comments that we received on 70.64, as I mentioned, we changed the preliminary ISA to the preliminary hazard analysis. We've clarified the contents and use of the submitted preliminary analysis and we've identified what the preliminary hazard analysis goal is, which was kind of nebulous before this version of the rule. We received a comment we did not take that said that the baseline design criteria should only apply to new licensees, meaning it should not apply to existing licensees in any case. We disagreed with that comment, this first bullet, as a matter of principal. A new facility and an existing site should be designed using the same principals as a new facility at a new site and the rationale given by NEI

in the letter explaining why they thought baseline design criteria should not apply to existing licensees that -- we didn't understand it completely, but we think what they were saying was that alternative design criteria will be developed as a matter of course, whenever you're doing the preliminary hazard analysis, in a matter of good business. And we agreed with that and we thought these principals we're setting forth in the baseline design criteria section helped in that respect and we're now owners in that. If the ISA or preliminary hazard analysis showed that additional baseline design criteria were appropriate or some of the baseline design criteria we've listed were not appropriate, that they could be substituted. So we didn't review the baseline design criteria section as being onerous on existing licensees with respect to designing a new process. If we truly do mean that these new processes are only these major facility changes, like building a new building, and we'd like the feedback on that. I'm sure that you have discussed -- that's been on the web site that we didn't take that comment. So at this point, I'll turn it over to Heather and she will discuss the things that are submitted to NRC.

MS. ASTWOOD: It's going to be difficult for me to talk without moving around. This is -- it's going to be difficult to read. I just wanted to put up the old 70.65 just very quickly to familiarize people with it. I'm sure everybody remembers it that read it. But it basically said that the ISA summary was going to be considered part of the license, we asked that it be submitted. We give a very short description of what should be in the ISA summary and we also ask that the operating facility history for the last ten years be submitted. The most common comment we got on 70.65 was the fact that the industry did not want the ISA summary as part of the license because of the increased burden of license amendments that that would cause. Any change would have to be an amendment. So the big concern was to remove it from being part of the license. We also got a comment that the description we had in the rule was not specific enough. It was very vague and we were relying on what we had put in the SRP. It was a comment that we needed to increase our description in the rule and the fact that the operating facility history was not needed and repetitive, because that would be information that NRC would already have through inspection reports and event histories. So based on those comments, we did take out the -- we did take it off of the license. 70.65 now says that the ISA summary will be submitted along with the license application, submitted at the same time as the license application, but is not part of the license and, therefore, is on the docket. We also removed the operational history requirement and we increased our description of the ISA summary and we modeled it after the NEI comments in the 12/22 letter, which was very similar to the chart at the December 2nd and 3rd meeting, in which NEI included what they thought should be included in the ISA summary. 70.65 now also contains the requirements to submit a description of your safety program, which includes your management measures as you do now. That was the part that Rob had mentioned he had taken out of the 70.62. It simply was moved into this section. This slide is just -- that doesn't even show. What this shows is what NEI's letter was, what they described in their ISA summary, what should be included. You can go ahead and take that off and put the next one up. What it included was a list of the description of the facility, description of the site, description of the processes, description of the ISA team, a list of the high risk accident sequences, and the items relied on for safety. We took those comments and we placed them in our description, 70.65 now contains a description -- a request that the ISA summary contain a description of the site, the facility, each process analyzed by the ISA, a description of the ISA methodology and team. We changed the

wording from high risk accident sequences to mitigated accident sequences which exceed the performance criteria, based on what Rob had said earlier, that the term high risk now means exceeding the performance criteria. So that's why the wording was different in there. We also added the descriptive list of items relied on for safety. There was no annotation in NEI's comment about that. We added one in what we posted on the web that says this a list of each item, with an item name and enough description to describe what its safety function is. The ISA summary now also includes a couple of other things. We ask for a list of processes that contain accident sequences which would exceed the performance requirements, unmitigated, and the maximum consequences for those processes. So this is slightly different than the list of items relied on for safety, which is simply a list of items. This process would contain a consequence of concern. One of NEI's comments in the body of the letter was that NRC's focus of reviews should be on those areas of highest concern, on those processes which have the highest consequences and have the highest concerns. So that's where this list would come from. That would focus the reviews in those areas. We're also asking for a list of items relied on for safety that are the sole item preventing an accident sequence. This is very specific and is different than the original items relied on for safety list. This would pull these out. If you have an accident sequence which only has one item preventing you from having that accident, we would like to know that in a separate list, and the reason for that is that is now part of the change process in 70.72, which I will talk about. And then, also, as Rob talked about, we have a description of the applicant's use and definition of several terms, likely, unlikely, highly unlikely and credible. So that's what will be submitted in the ISA summary. Now, we move on to 70.72, which is the facility change process. 70.72 includes a requirement for the licensees to establish and use a configuration management system of their own. Any changes on-site would go through their own configuration management system that they set up and they control. 70.72 now also contains two different options for the change process. We will walk through both options, but we were looking for comments on both of those options. Also, 70.72 now contains a requirement that any changes at the facility that are made through this configuration management system that change the ISA summary, that those revised page changes would be sent to us within 90 days of the change. That way, the ISA summary that NRC has used as its safety basis and licensing basis continues to be a living document. It's only, at any one time, 90 days old and can be used as a current living document. We also ask for a brief summary of all changes covered by 70.72, all other plant changes done under this configuration management control and a list of those things every six months. That covers the body of what's in 70.72 outside of the actual change process and the two options. I'm going to talk about option one first. This is a much shorter list and these are changes that have to come to NRC for pre-approval, which would mean a license amendment. Any changes that are made to the ISA or the ISA summary that do not meet these criteria do not have to have a license amendment. The changes can be made, page changes sent to us, and there's not a license amendment. Any changes that require NRC pre-approval would require a license amendment. The change process for option one, you would have to have prior approval for changes that create a new unmitigated accident sequence, which wasn't previously evaluated in your ISA. You would have to come in for pre-approval if you remove, without equivalent replacement, an item relied on for safety which you listed in your ISA summary. In the ISA summary, we asked you to put together your list of what your items relied on for safety are, you identify them. However, if, at a later time, you decide to change those and don't replace it with an equivalent replacement, which

is a decision that you make during your configuration management review, then that would have to come in for NRC pre-approval. You could make the change as long as you do not alter an item relied on for safety if it is the sole item mitigating an accident. That's what we talked about before with if you only have one item that's mitigating an accident, if you alter it, that's a positive or negative change, then that's something that NRC would want pre-approval for. The reason some people ask about the fact that it's a positive change, if you actually are using only one item relied on for safety to mitigate an accident which could exceed the performance criteria, that is a very serious consequence, that's an important item relied on for safety and we want to know any changes, because it would only take one mistake for you to exceed the performance criteria. The last part of option one is not otherwise prohibited in your license conditions or in an order or otherwise in the section, that also came from NEI's comments, that they should be required to have pre-approval for those types of changes. So that's one option. That same change process we also include in option two, to be consistent with the change processes that are being talked about and discussed in NRR for 50.59. We basically took the last proposed criteria for 50.59 and made it consistent with how we would use it for these facilities. There is more -- the threshold for changes to come in for pre-approval is much lower. We talk about pre-approval for any changes that have minimal increases in consequences and likelihoods. But it is consistent with 50.59 and we are looking for comments on this section, also. I am not going to walk through each page, because there are several pages of what these changes include, but they all run equivalent to this one, with minimal increases in frequency and minimal increases in likelihood. You can flip through them in your book. I guess in closing, we try to make the ISA summary section to be consistent with what NEI had requested in their letter, their December letter, and we also tried to make the change process consistent with some of the comments that you had sent in. We did deviate from the -- in option one, we did deviate from the words minimal increase in risk, significant increase in risk, approach to or exceeding the performance criteria, which I think are words that NEI had suggested, because of the problem in defining those words. It was very difficult to do that and come up with exactly is significant or approaching or minimal. So option one deviates from option two in that we're trying to avoid using the words minimal increase in change, minimal increase in risk, significant, those types of words. That's the conclusion of my section. I'm going to turn it over to Drew for 70.74.

MR. PERSINKO: The last section we're going to talk about is the reporting requirements which are contained in Section 70.74 and Appendix A. NEI provided a letter on this subject and in the letter NEI had basically five major comments. One was that the existing reporting requirements are adequate as is. The one-hour reporting was too restrictive. All personnel hazards should not be reported. There should not be required to be continuous radiation monitoring in unrestricted areas, and to eliminate -- there were problems with subjective language that was contained in the previous version. We reviewed the comments, incorporated many of them. We did not agree that the existing report requirements as is were adequate. We felt that there needed to be changes in order to be consistent with the new rule language, with the concept of performance requirements. We did limit -- in keeping with that, too, we limited one-hour report to those that were considered high consequence and also to unplanned criticalities. So there are only three items that are required to have a one-hour report. We had an eight-hour reporting requirement for events of lesser than high consequence. One of the purposes in revising this as we did was that

we anticipate that this would supercede the current requirements contained in Bulletin 91-01. We also eliminated the subjective language and we revised it to show that we did not mean that -- we were not implying that you had to have continuous monitoring in the unrestricted areas. In the one-hour report, we have three items, like I said. We have an unintended criticality, an acute intake of greater than 30 milligrams of uranium in soluble form, and acute chemical exposures that are greater than the high consequences that have been proposed by the licensee, as discussed by Rob in the chemical area. In the eight-hour report, we have loss of controls so that there are no remaining items relied on for safety to prevent a nuclear criticality accident. We have an occurrence or process deviation that was considered in the ISA, but it was dismissed due to its likelihood or was categorized as unlikely and whose unmitigated consequences could exceed those in 70.61(b), had the items not performed their safety function. We have a requirement for reporting natural phenomena, another one for chemical exposures exceeding the median consequences that were proposed by the licensee. There's another requirement of an event or condition that could prevent the fulfillment of a safety function, one for loss or degradation of items relied on for safety that may result in increasing the values in the unrestricted areas. What we were trying to get at there was we weren't intending that you implement a permanent continuous monitoring system, but rather if you lose a control that you were relying on to prevent that from recurring, that would be reported. Also, we included, as a last reporting requirement, an event or situation where you intend to make a public -- a news release. That concludes the reporting requirements section. There is also in your packet a slide about other new definitions in 70.4 and changes to requirements in 70.66 and changes in 70.73. Now, those changes, we've discussed the new definitions as we went through this and the last two were really changes to -- it really just paralleled the rule language. There is no substantial changes in those sections. With that, we conclude our presentation on the rule.

MR. KILLAR: Thank you, Rob. I'm going to attempt to summarize what was in the rule package and afford the opportunity for NEI's and industry's comments. I'll start here. We're not going to use any overheads. In fact, what we prefer to do, we don't have a canned presentation, so to speak. What we prefer to do is just basically go through the rule section-by-section and identify the areas of concerns that we still have, maybe some clarifications and things. I do want to comment initially that we're very, very happy with the direction the rule has been going. We think that we've made great strides in the chemical safety. We think that that certainly has been resolved satisfactorily. Criticality safety, as well, we think that we now have a very good understanding of criticality safety and we feel that that's gone in the right direction. The ISA summary, once again, we think that's taken a very good direction. The ISA itself has taken a good direction. We till have some questions, we think, a little bit on the contents of the ISA summary, but the overall application of the ISA and the way the summary will be used now will fully support that approach. We do agree that with the performance criteria, as you've revised now, we think very much a risk-informed performance-based rule. So we think from that aspect of it, the rule has made great strides and we're very happy and glad of the direction it's going in. There are four areas that we've identified that are probably, I guess, the areas that we have the greatest concern and we need to have most, I think, discussion, focus our discussion on this morning. 70.64(c), the preliminary process hazard analysis, what came out, first, is what we envisioned from the last meeting and the workshop and what have you isn't quite what we had envisioned

and we think we need to spend a little time talking on that. 70.65(b), the ISA summary contents, as I have mentioned, we think the ISA and the ISA summary is coming together well, but we're still not clear on the contents of the summary, so we need to spend some time talking about that. And then 70.62(d), the change process. We see where you've captured a number of the concepts that we've suggested, but we're not sure we understand some of the other things that you've put in there and we think we need to spend some time to make sure that we truly understand the approach. The last item is the lack or the non-specificity of a back-fit provision. We've asked for, several times, some indications in the SRM that a back-fit provision should be considered and in some of the release notes, it said that it will be considered, but we have yet to see it considered. So those are our four areas that we think probably have the greatest room for clarity and discussion. With that, I guess -- is there anything else that anyone else wants to raise? As I indicated, I think our approach, our preferred approach is just to basically just walk through the rule and provide you our comments as we go through there, and starting with the definitions section and actually get us to a point that you had made earlier on the controlled site boundary. We're not sure what the controlled site boundary is and the definition that you've included, what have you, gives us some concern. Maybe if we have a better understanding of what you're trying to do with the controlled site boundary, we'd have a better handle on it. I think as USCC had suggested, is that you have the restricted area, which is primarily your radiation protection area, but then you have a controlled area around your site where you have limited access for the public and what have you and, in fact, some of our licensees say if they have the public roaming around in that area, they typically call the local sheriff's office and they have the public removed. So we consider that a controlled area. The controlled site boundary term, to us, it isn't clear what you're intending. So if you can give us a little bit more understanding of what that is, it would help us to understand what you're trying to accomplish with that.

MR. LEWIS: I'll start off with, the definition controlled site boundary means the physical barrier surrounding the facility that is used by the licensee to control access. It may or may not coincide with the proper boundary. The best way to describe that is to compare it to NRC's regulations, controlled area and restricted area in Part 20. The controlled area -- excuse me. I didn't hear you.

MR. SHERR: Please use the mic.

MR. VAUGHAN: Part 73 has a definite controlled access area, which I think is an area similar to your new definition of controlled site boundary.

MR. LEWIS: Yes. We can speak about Part 73 as well. I'll start with Part 20. The controlled area in Part 20 doesn't necessarily denote a physical boundary and that's the difference between the controlled site boundary and the controlled area. The controlled site boundary is intended to capture the situation where you have a nuclear facility which is basically an island on the property of a licensee and there may be many other facilities on that licensee's property that have nothing to do with nuclear considerations. They're maybe a construction firm that is owned by the parent company of the licensee or something that is nearby or a DOE licensed -- well, DOE doesn't license, but a DOE facility that is nearby the NRC facility. With respect to the activities that are performed in the NRC license, the things that occur outside of the controlled site boundary would be considered impacts to the public. So if the people that are on the property are

not workers, in the radiation worker sense of the term, then we would expect they'd be given the same level of protections as a member of the public. We have that situation in the questions and answers that were prepared for Part 20, when it was published, and there was a situation where there was a coal plant on the property of a nuclear plant, on the licensee's property, where there is a coal plant and a nuclear power plant basically next door to each other. And with respect to the activities at the coal plant, the licensee needs to treat the workers at the coal plant as a member of the public, unless the normal operations of the nuclear plant force the licensee to treat the people at the coal plant as radiation workers, and then incorporate them into the radiation safety program. I would have to defer to Liz to discuss Part 73. A restricted area in Part 20 is not an appropriate term because it can be located within the building. It can be a very small area, the way the Part 20 allows them to be defined.

MS. TEN EYCK: We didn't specifically want to use controlled access area because that has specific physical protection connotations and we were looking at this from a safety perspective, not a physical protection perspective, and that was why we chose not to use that term. But as was mentioned, I think our main concern is that controlled access area does not connote any type of a barrier, and that was our biggest concern in coming up with something that would actually denote a barrier that would distinguish the area that would be considered -- outside that barrier would be considered a member of the public and not a worker.

MR. GOODWIN: I guess the question we have, and I can't necessarily speak for all my colleagues here, but in our case, we have a large site. We do have a fenced area around the developed area at the site, which that fence is considered that CAA fence, if you will. I guess I see the definition as given here in the proposed rule as being anything beyond that, but between -- or between that and the site boundary. In our case, we use -- we have postings, we have fence, we have periodic security patrols. So we consider really that we control our site at the boundary and likewise we use the site boundary, the nearest site boundary, that is, for the maximally exposed individual to calculate the off-site exposures to the public. And personally, I would not like to see the definition not allow that; in other words, have to move back to the controlled area fence, because that's really a small area and it's very close to the plant building there. So I'd like to take advantage of the distance between the plant and the off-site boundary. I don't know if you can speak to that or not; if, in the case of that, that would be considered a controlled site boundary, where you do have some controls and obviously you don't have some of the most stringent controls, but we do patrol and, like I say, have postings and have fences and things of that sort.

MR. LEWIS: I understand your comment. I guess I would respond that we incorporated the term controlled site boundary and it would mean the closer area for you, in my interpretation. We incorporated that term to be consistent with the past practice and our reading of the question and answers from Part 20. And as a point of fact, that term has never changed from the SECY version of the rule.

MR. PAPERIELLO: We'll look at it. Do we have your comments in writing on this one, on what you want to do?

MR. LEWIS: We have them prepared, but we have not submitted these.

MR. PAPERIELLO: I'd just like to know. My preference is to reduce the number of definitions. We have one in Part 20, one in Part 73, and if we have a third one in Part 70, even I get confused. I'm not promising you anything. Let's make sure -- I want to focus on what we want to achieve and achieve it through the fewest number of definitions.

MS. TEN EYCK: Let me just add, though, the controlled access area is only used for category two and three facilities. A category one facility would not have anything called a controlled access area. So that was the reason we didn't want to use a term that only applied to certain types of fuel facilities and not all facilities in general.

MR. SHARKEY: I don't think we're suggesting that the controlled access area, though, be the controlled site boundary. Our facility is similar to Westinghouse's facility. It's 228 acres. The operations, the controlled access area is seven acres on that. People don't typically walk across the site, though, and we do have -- our security guards do routine patrols and it seems a better demarcation line would be the site boundary in a lot of areas. Maybe it's some fictitious line where the boundary is not clear. But for looking at an accident sequence and the results of an accident, it's not likely that somebody is going to be standing at that fence line that is now the controlled access area, which would be the controlled site boundary. People just don't stand there.

MR. KILLAR: That's really what the nuts and bolts of it is. When you start doing the actual analysis, where do you look at the maximum exposed individual and that -- this definition makes a big difference as to where that individual can be and that's why our concern is to how that definition is used.

MR. EDGAR: I think another consideration that needs to be given here is your premise that you're protecting non-nuclear workers on a site, if your site is only used for nuclear workers; that is, you have no non-nuclear workers outside the controlled access area on the site, it would seem to me that the property boundary, as long as it's posted and patrolled, would be an adequate boundary.

MR. LEWIS: My understanding to this point has been that the off-site impacts of these facilities is minimal and it doesn't really matter if you call the controlled site boundary 100 feet or ten miles, it's going to be the same off-site impact. And if the off-site impact is truly zero, then why is the point of public compliance an issue.

MR. SHARKEY: I don't think that is necessarily true. In our case, the fence line, the controlled access area may only be 30 feet from a process building. So I haven't done the modeling, but I think it would be different 20 feet from a source as opposed to a half a mile away where somebody lives or is likely to be, significantly different.

MR. PAPERIELLO: My observation is we have to distinguish between -- I'm going to go back to the reactor analogy. There is such a thing as an owner control area and for reactors, we do normally analyze for accidents off of the owner control area and our controls for -- if you have an

owner controlled area -- of controlling what people do, and use the recreational facilities, where they exist on owner-controlled areas, but there's normally some kind of a procedure, in case of an accident, to evacuate people. We'll check to see how this rule is analogous. It ought to be analogous to the reactor side of the business. So it's just a precedent. It's a precedent to -- I mean, we even allow general public as visitors in the nuclear plant, so we don't turn around and make them occupational workers.

MR. KILLAR: And that's basically what we're going to. Moving on, the next definition, the definition of critical mass, especially nuclear material, we don't feel there is a need for the definition. The definition isn't used anywhere in the Part 70. So by having the additional definition in there, particularly when you start talking about four percent by weight of uranium-235 and things like that, it may actually be detrimental to the program rather than helpful to the program. So we suggest that definition be deleted, as well.

MR. LEWIS: Can I respond to that?

MR. KILLAR: Certainly.

MR. LEWIS: I think I agree with you on deviation from safe operating conditions. That might be a relic from the previous version. But the reason we have a definition of critical mass was to distinguish between agreement state licensing. If we removed that definition, then this rule may be interpreted, depending on how the applicability section reads, it may be interpreted to apply to some agreement state licensees as a matter of compatibility. We wanted to avoid that entirely by putting -- this is only a rule for people that have greater than this amount of material, which is always NRC licensees.

MR. KILLAR: I guess our concern with the definition -- basically, the definition reads all right the way it is, but when you start talking about four percent by weight and we have facilities that are licensed 100 percent by weight uranium-235, it implies things that may not necessarily be true for the licensees, and that's all. We can live with the definition. The next one we have is over on the integrated safety analysis, just some wording, minor wording changes. Rather than go through the idea of site structures, systems, equipments, components and activities of personnel, just change that to items and that way we're more consistent throughout the regulations and you don't have to worry about dropping an item or dropping one of the items as you're going through and listing them. So that's just a clarity type thing.

MR. GOODWIN: And, in fact, items relied on for safety includes those in the definitions.

MR. KILLAR: Right. And moving down to the next one, the integrated safety analysis summary, we're concerned with the use of the words "submitted in conjunction with" and we felt that gives the idea that the ISA summary may actually be part of the license on the -- and not a document that's submitted with the license. So we just changed -- dropped the "in conjunction" and just say means a document submitted with the license application. Then the end of that basically goes into a lot of discussion that's already covered in 70.65 and we found there may be some inconsistencies between 70.65(b) and what's in the definition itself. So for clarity, what we

suggested is that it be revised such to say that the contents or the information contained in 70.65 and that replaces everything that starts with "informs the Commission of the nature of the site facility processes" and all that. So we delete everything after "informs the Commission" and replace that with "contains the information specified in 70.65(b)."

MR. LEWIS: Are going to give us these in writing?

MR. KILLAR: Yes, we will. We have them here. We just haven't -- we were working on them yesterday, and so we still just need to go through and do a final QA on these to make sure we've got our I's dotted and our T's crossed.

MR. C. VAUGHAN: We used a lot of words to describe what that answer was, but the bottom line is the content of that summary is defined in 70.65(b) and while you may still want to have some definition, just to make sure that it's clear, the definition just needs to be simple. Go to 70.65(b). Whatever words you want to use to do that.

MR. KILLAR: Items relied on for safety. We did want to add in there, in the second line, where it says "relied on to prevent" and we say "or mitigate potential accidents." Then similarly, we want to say that could result in non-conformance or non-compliance with the performance requirements of 70.61. So we make it a little bit more specific rather than the current way you have it worded. And maybe the way to make sure you understand what I'm saying here is to read the whole definition. Items relied on for safety means structures, systems, equipments, components, and activities of personnel that are relied on to prevent or mitigate potential accidents at a facility that could result in non-compliance with the performance requirements of 70.61. So we think that's the same intent, but we think it's clearer than the way it was written previously. Down in management measures, the last line there, we talk about the investigations, records management and other quality assurance systems, what we suggest to say is other safety assurance measures. So what we're doing is we're getting away -- we felt that quality assurance was a misnomer of what you're trying to get at. You're really trying to get at safety assurance and you're trying to have the safety assurance measures rather than systems. New process at existing facilities, we deleted that definition and as we get over into 70.64, I think it's 70.64, if I can recall the section, we'll get into a definition and the issue of new process at existing facilities and I think that will help clarify that. But we don't think the definition is helpful at this point in time. Preliminary process hazards analysis.

MR. SHERR: You don't have a specific definition change?

MR. KILLAR: No. Our changes deletes the definition, because we feel it's covered adequately in the section and by having the definition here, it ends up providing some confusion between the definition and what you're saying in the section. So by just having it in the section and not have the definition, we feel it makes it clear as to what the intent is. And we have the same comment on the preliminary process hazards analysis. You have the section dealing with that and then you have definition over here. We're concerned that there seems to be some inconsistencies between the two, at least from our reading of the definition and reading of the application. So we felt it would be better to delete the definition and just focus on the application rather than definition.

Unacceptable performance deficiencies, what we'd like to do there is add in the word "measurement" -- "management" before "measures." So it reads "means efficiencies in the items relied on for safety or the management measures," and then we'll delete the rest of that, up to "needed to be corrected to ensure an adequate level of protection, as defined in 70.61(b), (c) or (d)." So what we're doing is we're replacing the words "used to assure the items are available and reliable," to make that a management measure, because that's basically what management measures are for. I think the next one we have -- we get into the applicability, Section 70.60. We did change -- we did want to add in enriched uranium scrap versus just scrap recovery, to differentiate between enriched uranium scrap recovery and scrap recovery. Now, you added in the definition of facilities used for these activities, and we're not clear why you had to put that in there, since they're already licensed under this section, why you need to put the decommissioning facility for these activities in here. You did mention it specifically in your opening remarks. Maybe you can give us a little clarity on that.

MR. LEWIS: And the reason it's there, a facility which may now not be operating and the words used here are "engaged in or plan to engage in, who currently possesses greater than critical mass of material should also meet this rule." And that facility may not ever resume operations. So it wouldn't be captured unless we had that phrase.

MR. KILLAR: I'm not sure how they continue. Certainly, they may be on shutdown or what have you, but won't the timeliness rule intervene and require that they have to go back in to start decommissioning two years after they've been operational? And that rule is in effect already, and so I would think that they've already been captured by that.

MR. LEWIS: I don't know the answer. I'm actually meeting with the people that wrote the decommissioning timeliness rule on Thursday and I'll ask them that exact question.

MR. GOODWIN: Even though the facility may not be operating, there should still be a licensee or a license holder and I think that's where we're coming from. It would be handled under the current license and, of course, that is not terminated until the facility is decommissioned.

MR. SCHILTHELM: I just have a question. Is there a problem that you have by its inclusion? I think the assumption of the rule right now is the fact that when a decommissioning is being done, just like any other changes of operations at the facility, the ISA would be conducted through, in fact, identifying possible accident sequences and ensure that the adequate controls are in place. Performance requirements. That's the sense of the rule and we're only putting it up in this list for completeness, so that it applies to that. So I think it's consistent with the NEI comments that came in. I'm trying to understand what problem including it in this list creates for you.

MR. LEWIS: Let me try to help, Ted. I can think of one example. At some point, in decommissioning, that particular party or facility you're going to declare S&M free and you're not going to want to invoke the full essence of the ISA on that portion of the facility. The way this reads, though, if that's a portion of an existing facility that you're currently decommissioning, regardless of its status or S&M content in that particular part of the facility, you could still be required to invoke the ISA requirement. Did that make sense? No? You're shaking your head.

I've got some ponds on decommissioning right now under my existing license. I don't intend to invoke the ISA requirement on those ponds, yet I do have a critical mass of S&M at our facility under S&M-42. It would be onerous to invoke ISA requirements on shoveling out 40 picacurie per gram of dirt.

MR. LEWIS: But you would only have -- the way this reads, you would only have to invoke the ISA requirements if those ponds, meaning those facilities meaning ponds, were used for any of the listed activities.

MR. SCHILTHELM: They were part of the process at one time. At one point in time, they were and they're part of the licensed activities.

MS. TEN EYCK: Let us look at that.

MR. KILLAR: The only other thing that we suggest is we have additional, at the end of here, that the gaseous diffusion plants certified under Part 76 are not subject to Part 70, just to make sure that there isn't any questions, because you do have enrichment facilities and you do have specific Part 76 requirements for the diffusion plants.

MR. SHERR: Do you want us to be explicit? Is that the thing? Do you want us to be explicit, to make another statement that says it does not cover gaseous diffusion plants covered under Part 76?

MR. KILLAR: 76, right. Double jeopardy. Anything else on 70.60? Okay. And 70.61, the performance requirements, we would elect or recommend we use the word "evaluate" rather than "demonstrate," because you are doing evaluations against the criteria versus a demonstration, and we think the terminology is a little bit different. And so we prefer to use the word "evaluate" rather than "demonstrate." The first line, "Each applicant shall evaluate, in the integrated safety assessment performance, its compliance with the performance." So we're changing "demonstrate" to "evaluate" and adding "its" after "70.62,". Similarly, down in Item B, we're changing the "demonstrated against" here to "determined to be highly unlikely." Once again, because this is a process, an analytical process, and so it's a determination rather than, we think, a demonstration. And then down in B(II), and this is the one we talked about earlier, the outside the controlled site boundary, we would suggest a maximum exposed resident rather than talk about the outside the controlled site boundary. This is more along the lines of what we're currently doing as far as our requirements for meeting Part 20 and demonstrating compliance with Part 20. And then that same comment applies in Item 3, as far as an intake to the maximum exposed resident, rather than outside the controlled site boundary. Also, in 4(II), we deleted "outside the controlled site boundary" and just changed that to read "could lead to irreversible or serious long-lasting health effects to a maximum exposed resident."

MR. SCHILTHELM: You all are sitting there taking in a lot of information. On this particular one, was your intent to have a performance criteria at a location or to an individual? The on-site one is clearly to an individual. But I guess what we're looking for is maybe some consistency. Most of our performance criteria have been to a receptor, a person somewhere, whether that

person be real or imaginary. This one appears to be at a location.

MR. KILLAR: Moving into (c), 70.61(c), we have some things as far as the determination rather than our -- or "determined" rather than "demonstrate" and then in two, four -- two, three and four talk about the maximum exposed resident, once again, rather than the outside the controlled site boundary. We did add one clarification in four, in the last full sentence. We said if an applicant possesses or plans to possess quantities, and we said licensed material, just to make it clear that it's licensed material, capable of such chemical -- And then in Item D, we --

MR. LEWIS: Can I interrupt?

MR. KILLAR: Certainly.

MR. LEWIS: It's not only licensed material. I originally, in one of the earlier drafts, had that in there like that, but the problem is we need the entire phrase, licensed material or hazardous chemical produced from licensed material. And then when you add that in, it gets kind of complicated to read, so we just dropped it.

MR. KILLAR: We'll look at that some more and make sure we're not taking away. We certainly agree with you as far as the intent. We're not intending to take it away.

MR. GOODWIN: I think in other areas, we've used the licensed material or material produced from licensed material, I think that's in the rubric.

MS. TEN EYCK: That's why we were trying to abbreviate it there.

MR. KILLAR: Moving into D, we deleted the first sentence there or the first part of the sentence, that says "In addition to complying with paragraphs B and C of this section," we felt that that was redundant, that you have to comply with Sections B and C of this section. So we then changed "the" to a capital "The" and started the sentence "The risk of nuclear criticality must be limited to assure that under normal credible operating conditions." Plus, there was consideration or concern that as written, it's saying in addition to complying with B and C, this would actually put criticality back into B and C. And so we wanted to make sure that -- criticality certainly is an event that we have to be concerned about, but we did not mean it to be intended to be one of the criteria, performance criteria that's defined in B or C. That's a separate criteria, D itself.

MR. COMFORT: I'll try to address that one. Basically, the intent is that a criticality event would still have to be evaluated against the performance criteria in B and C. Now, the way it's taken out differently is that if your evaluation results in -- you know, although you have to prevent the accident, there is still the chance that you could be using some sort of mitigation that would bring you down into a lower category for the performance criteria of B and C. But you still have to meet it in the fact that you would be taking the high consequence events and limiting the likelihood of it. So in fact, by meeting D, in general, you're going to meet D or C, because you, in fact, said that you're not going to -- you're going to remain subcritical. You can't easily have that accident. But in order to evaluate that, particularly if you look in the SRP, we're not requiring

anywhere in here, you know, although the intent is that we would hope that you would use things like double contingency to prevent it, there are alternative measures to show that you're meeting B, C and D than just double contingency, but we need to have a baseline that a reviewer can look at. And if you're not using double contingency to show that you're going to remain subcritical, we'd expect our reviewer to go back and look, are you meeting the intents of B and C. Now, meeting double contingency, we basically say in the SRP is equivalent to meeting the likelihood requirements in B, saying that you basically created an unlikely -- or a highly unlikely condition.

MR. SHERR: One thing to just add is that this afternoon or tomorrow, whenever we get into criticality SRP chapter, it's addressed there and maybe if you have concerns with how we address it there, we can come back to this.

MR. KILLAR: Our perspective was basically the same, but from the reverse. If you look at assuring that you're going to stay within the performance criteria of B and C, criticality is one of the potential events that you have to have in order to exceed that. So you have to already protect against criticality. So that's why we weren't sure why adding it back in there was necessary.

MR. COMFORT: We'll look at it and maybe talk about it when we get into the SRP.

MR. KILLAR: On the Item E, we wanted to, in the second full sentence, the one that starts "The safety program established and maintained pursuant to 70.62 of this part shall." We want to change that to "provide reasonable assurance that items relied on," because we can't guarantee that "shall ensure that each item." We certainly will do our best to do it, but we want to provide reasonable assurance. We're concerned more of a compliance type aspect of it, that it may be gigged because of something along that line. That's all I had on 70.61. Is there anything else on 70.61? That was just an editorial change. Okay, 70.62, the safety program and integrated safety analysis. We'll start out there with the "Each licensee shall establish and maintain a safety program." We say "consistent with appropriate management measures to provide reasonable assurance that items relied on for safety will be available and reliable when needed." Once again, our concern is that we're going to have programs, we're going to have management measures to assure that this equipment is going to be available. Certainly we don't expect to make it available when it's not needed and that if we're down for maintenance or what have you, the availability is not necessary. At the same time, when we say appropriate management measures, things do happen; you know, you do everything you can, but there are going to be some failures. So we just want to make sure we're not caught up in a compliance issue because of a failure or a breakdown or what have you and that -- and say that we didn't do that. So our concern is to try to make this more of a reasonable man type approach.

MS. TEN EYCK: My only comment there was that we are concerned that appropriate maintenance procedures are in place and if you have something -- to use your example of if something broke down. If something broke down and it's because you didn't have an adequate preventive maintenance program, then we may have a problem with that thing. So I just want you to consider that when you think of the words we're using there and what the intent. Our intent was that you ensure all the appropriate management measures to ensure that it is available and reliable and not be able to fall back and say, oh, well, it failed or it this or that. You should be

looking to prevent things from failing by having appropriate management measures, and that was our only intent there.

MR. KILLAR: And our application of appropriate management measures includes things like maintenance and testing and inspections and things like that. So we look at management measurements as including those items.

MR. PERSINKO: I would think you would take into account, at the outset, when you do your ISA, how much time something is going to be out and your probability of failure. Wouldn't that be accounted -- that would be accounted for in that availability at the outset at the ISA?

MS. TEN EYCK: Then you make the determination what management measures are necessary for that particular item relied on for safety. Say, for example, you determine, well, we really don't need preventive maintenance on this because it's done pretty well and whatever. And then we run into a situation where we're finding that you're having problems with that particular thing failing because it doesn't have adequate maintenance and we need something to assure ourselves that we can then say you need to provide a better maintenance or something to ensure that we don't have this repeated problem happening. So that's where we're coming from, because it's you -- we have backed down, so we are not saying you don't have to have a maintenance program, you don't have to have this and that, but you need to select the things that are needed so that -- to ensure its availability and reliability.

MR. GOODWIN: I think our bigger concern is with the administrative controls and the reliance upon people, where we absolutely have to and the inherent human imperfections. That's really what we're talking about.

MR. LEWIS: I would add that the accidents that we specified in the performance requirement are very significant and if there truly aren't management measures that ensure compliance with the risk that we've established, then there is a compliance issue and I don't see any way around that. Just changing the word to reasonable assurance from ensure is not going to solve that problem.

MR. SCHILTHELM: Let me try to address that, because I think I talked these guys into being concerned about that. We know we apply a lot of safety systems and we apply a lot of defense-in-depth practices, because we know that systems will fail. An administrative control, for example, will, at some point, fail. So there are many layers of controls, but if I have to ensure that something is in place to prevent these failures, then I get into this compliance issue where even though you've got a system that anticipates that failure at some probability and makes the risk acceptable given that probability, I still have a non-compliance for every failure. Does that make sense?

MR. LEWIS: There may or may not be -- for example, if the ISA takes credit for a redundant system, one of the systems could fail and you're still in compliance with the performance requirements while you repair that system.

MR. SCHILTHELM: But maybe not necessarily this statement in the eyes of the regional

inspector. So that the failure --

MR. KILLAR: We ensure the operability of that system. We ensured the operability of the safety of the overall system, because if part of it failed, we shouldn't be gigged on it. On the next one, B, process safety information. We recommend deleting "compile" and "a set of." To us, to compile and establish a set of implies that you're trying to have some type of book that you pull off the shelf and look at these things. We have process safety information available for each system. It's by a system-by-system rather than a book of these type things. So we're concerned with the use of the term "compile a set of process safety information."

MR. SHERR: But leaving the word "compile" in?

MR. KILLAR: Instead of. So it would read "shall maintain process safety information," because we do maintain process safety information, but the process safety information is based on the overall system. If it's an ADU system or what have you. And our concern is that if you're applying process safety information, we have to have a book over here which says here is the process safety information for this, this, this and this, rather than by the discipline. Just the way of maintaining the information, we're concerned with the way it was written there. Over in Section C, integrated safety analysis, just a minor thing. Rather than say (II) chemical hazards of licensed material or hazardous chemicals, we suggest "and" hazardous chemicals. I understand, from your discussion earlier about the licensed material and hazardous chemicals, so it's nothing real strong. Facility hazards, then you have an "e.g., chemical fire, electrical, mechanical." We think that is probably detrimental to include those in that it gives the impression that it's limited to those four. We also look at other industrial safety items and things and the list can get very inclusive. So rather than be over-inclusive, we suggest to just leave more general and that gives us more, like I say, room or flexibility to understand what we're looking for as far as facilities or hazards, facility hazards. In Item No. 6(VI), each item relied on for safety pursuant to 76.2(e) of this part, and we've added "for an accident sequence that could exceed the performance requirements of 70.61," just to clarify that the items have to be in conjunction with the performance requirements. And I think that was what you were intending to say with the last part of that, and so what we've deleted is the last part of that sentence, after the "function," we've deleted the balance of that, because we felt the way you had it worded wasn't as clear as the way that we revised it. So just to understand how it's revised to or our suggestion how it's revised to, it would say "each item relied on for safety identified pursuant to 70.61(e) of this part for an accident sequence that could exceed the performance requirements of 70.61 and the characteristics of its preventive or other safety function." And then we suggest, at the end of that section, adding a statement that the integrated safety analysis need not be docketed with the Commission and it shall not be incorporated into the license. Just, you know, like to make sure we've got everything covered.

MR. LEWIS: Can I point out that in your change to C-1(VI), it's more than an editorial change, if you were intending to only have an editorial change, because the words "assumptions and conditions under which it is relied on" were intention there because we wanted the analysis to be able to be recreated. We don't want a simple list of the items that -- to be in the ISA. We're not talking about anything submitted to NRC at this point, but we want the ISA to give the reasons

why that's an item relied on for safety. So at some point ten years from now, you can see if those reasons are still valid.

MR. KILLAR: We certainly agree with you as far as the documentation and maintaining the documentation of how things have been identified. We spent some time discussing that, because what's going to happen is you'll have an ISA team together, they'll go through a process, and then everything will be documented and a team will be disbursed. And four years down the line, you want to make changes to that process, people have to understand how we got to where we are. So you have to have adequate documentation to be able to recreate that analysis. So I understand your point. I guess we'd have to look at that. Certainly we will look at the assumptions and conditions and how that's stuff is documented. I'm not sure.

MR. SHARKEY: One of the things, though, with an ISA is that a lot of it is dependent on the team and the makeup of it and what's going on with it. They don't document every single thought they have. So as time goes by, the people and the plant change. They may not have all the information. You do your best job to get the key things, but that's part of the reason for keeping it on-site and not sending it to the NRC. Even some methods, especially like the what-if method, really depends on the team and what their thought process is and you can't document all of it. I'm not expressing that well.

MR. SHERR: Bill, I'm not sure whose case you're arguing. I think the documentation or the assumptions under which one has identified a particular -- included a particular item relied on for safety is going to -- it's important information, because, in fact, the people who were involved might not be there anymore, or when you're -- all of a sudden somebody says I'd like to do something different, well, why did we do it that way in the first place, but we don't overlook what --

MR. SHARKEY: I guess I can see you going down that path with an inspector in the future, why you did go down that path, and I don't know that you'll ever be able to answer all the questions, because there is so much that's discussed in these ISA sessions that you don't document. They consider millions of things that go on and don't document every one. It's not tape recorded.

MS. TEN EYCK: Bill, I don't think we're suggesting that you have to document every assumption that might come up, but there has to be important ones that made you make the determination one way or the other, and that some assumptions are made during that process and we think those are the ones that are important to capture. That was our concern.

MR. KILLAR: I think we agree with you. Our concern is more along the lines of what Bill is trying to express of how detailed does that have to be. Our concern is that by saying documenting assumptions, what have you, implying that you have to put down every word that everybody said. We certainly understand where you're coming from and we can look at that some more. Over on 3(I), rather than six months, we'd like to have 12 months to complete the plans and, additionally, what we'd like to have, the first one is something similar to what you have in the second one, a statement that says unless otherwise specified, the condition of license held on the effective date of this rule, the idea being that we do have a number of people who already have license

conditions and so this should not upset that apple cart. The last sentence, in submitting the plan, there was no provision in the single (I) for people who already had a license condition to provide a plan and if you already have a license condition to provide a plan, that it shouldn't be changed by this because that license condition is ongoing and you're working on it, so you shouldn't be impacted by this rule at that time. In fact, my first recommendation is we shouldn't have a commitment to do this at all. All we have to do is within six months have a condition of your license, if you don't have a condition, to have a plan, but felt that, okay, we'll give you a plan, we'll work with you and give you a plan. But it should be a 12-month time period and it should be like, say, if we don't already have a condition to do that. The last sentence of that paragraph, pending the correction of unacceptable performance deficiencies identified by the integrated safety assessment, the licensee shall implement appropriate measures to ensure adequate protection. We're curious to what the relevance of that is to the plan. It seems like a sentence that just kind of wandered in here from I'm not sure where. So our suggestion is delete that sentence. It doesn't seem to have any relevance to submitting the plan. Then in (II), unless you have something else on that, we suggest five years rather than four years and what we'd like to see is four years after approval of the licensee's plan by the NRC. Our concern is that sometimes these things seem to take forever to get approval and while we have five years to complete the overall program, we spent three of those years going back forth discussing the plan. So we'd rather see something that's contingent upon the approval of the plan rather than contingent on the approval of the rule. Does that give you any grief?

MS. TEN EYCK: We understand your point. We will consider it. We're not agreeing with it. We will consider it.

MR. KILLAR: I just wanted to make sure the significance of the time period.

MS. TEN EYCK: I understand your last point here. I'm not sure of the five years. This is not a new initiative. We've been talking about this since '93. We do have various plans or licenses with commitments in them. The question is, what is a reasonable period of time to implement one. So we will consider your suggestion for extending that to five years.

MR. EDGAR: I think one of our reasons for that as to be consistent with the conditions that have been laid down so far.

MR. VAUGHAN: Just a comment on that. There are a number of licensees that have plans that have been approved and they are processing down the plan as it goes. And if you look at it simply from that standpoint, you would obviously say that a pretty quick transition would work. On the other hand, as we listen to some of the changes that are in the rule and some of the requirements that we're going to have to meet, I think most of those programs, while they have been approved prior to the rule, will not be acceptable under the rule and there is going to have to be some work to straighten out those programs and get the right kind of documentation and approval. And so if you look at it from that angle, sometimes those changes are almost more difficult to construct and get implemented than they are if you start with a clean slate. So whether you start with a clean slate or whether you start with a program that's got to be modified, there may not be a lot of difference when you get to the bottom line.

MR. KILLAR: Moving on to management measures. One of the things that I hit on a little bit earlier when we talked a little bit about management measures and the maintenance and inspection and what have you, we also consider management measures to include the safety programs. So we felt that by saying each applicant or licensee shall establish a safety program and management measures, we felt that was a redundancy. So we suggested you delete safety program and just say that each applicant or licensee shall establish management measures to provide, and then we said reasonable assurance rather than continuing assurance, reasonable assurance of compliance with the performance requirements of 70.61. The other change that we've made is that when we talk about administrative controls or control systems, and this is the intent that the control system may have individual controls in them, so we wanted to talk about the control system as a whole, and so we've added control system after most all of the controls or what have you. And then the last change that we made in this section is that we identify as relied on, we said items relied on for safety. This shows up in the -- I guess it's the last full sentence, the one that starts "The management measures shall ensure that the engineered and administrative controls are control systems that are identified as items relied on for safety pursuant to 70.61(e) of this part."

MR. SHERR: Felix, we ought to go on to 70.64. Since we didn't allow anybody to have a break this morning, I thought maybe it might be useful to break earlier for lunch and allow people to do all the things that they would like to do. Is it possible to reconvene at 12:30? It's 11:30 now.

MR. KILLAR: Fine with me.

MR. SHERR: Sounds good.

MR. VAUGHAN: Let me make one comment. We talked about a couple of definitions, new process at existing facilities, and the two references in the regulation, in the proposed regulation, if you want to make a note, are 70.72 and 70.64(a). These are the places that we feel like that information is and should be detailed. And for the preliminary process hazards analysis, it's 70.64(c).

MR. SHERR: We'll see you back at 12:30. Thank you. [Whereupon, at 11:30 a.m., the meeting was recessed, to reconvene at 12:30 p.m., this same day.]

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

[12:40 p.m.] MR. SHERR: Felix is going to rejoin us, right? At the time we broke for lunch, we stopped at the rudely interrupted Felix and his discussion and up to 70.64. Felix, I assume you want to continue from there.

MR. KILLAR: We most certainly do.

MR. SHERR: Thank you.

MR. KILLAR: Starting at 70.64, requirements for new facilities or new process at existing facilities. To tell you what our concern is, before I go into some of the detail and stuff, as we had proposed, we propose this apply only to new facilities. And as you basically indicated in your presentation, that you feel you want to have it at existing facilities. The only problem we have with the existing facilities is that when you start applying this criteria, design basis criteria, a lot of times at our facilities, we will take and gut a building and take all the equipment out and put a new process in that existing building. What happened is that building may have been built in 1975 or 1985. In 1999 or the year 2000, the seismic criteria may have changed or the hurricane or tornado resistance things may have changed. So in that case, then you may have to be ending up, in order to meet the intent of this regulation, to completely tear that building down and you cannot reuse that building. So that's where the main problem we have with applying this design basis criteria for existing facilities. It's basically impacting on a -- using an existing structure. So what you're going to have is then a mixture of a facility, if you don't clarify this, you're going to have an existing facility that the building is designed to an older specification, but the components and the equipment inside is built to a newer specification. I know that there are some similar problems they have with the reactors right now, running through that same type scenario. So we're trying to avoid that by not having it apply to existing facilities. Other than that, most of the other things we looked at on the list, the design basis criteria, we typically go through and we feel that we can probably apply those without any problem. It's more things like that that gave us the grief and that's what we were trying to imply in our -- or indicate in our letter when we said about apply it to existing facilities. So with that in mind, we can go back through here and talk about some of the suggested changes we have in here. The 70.64(a) baseline design criteria, what we suggested is deleting, in the first line there, other types listed in 70.60 of this part. They're all going to apply, so I don't know if you need to specifically pull that out. So I would just say that each prospective applicant or licensee shall address the following baseline criteria in the design of new facilities. Then we suggested a period after that and saying "each existing licensee shall follow the baseline criteria in the design of new processes at existing facilities that require a license amendment under 70.72 to be implemented." So we wanted to make it clear that for existing facilities, the criteria will only be applied if they need to do a license amendment. Once again, our concern here is that if you're changing out equipment or you're changing out some of the process of the facility, but you're able to do that under the 70.72 and you don't need design change, you don't get caught by this as far as you have to go back and review it against design criteria. Like I say, we probably will do that to a degree, but we didn't want to be ended up that we may have overlooked something along that line and caused some problems. So we did want to say that for existing facilities, only as required under 70.72 changes. Then moving on, we say the applicant shall address these baseline criteria to establish minimum requirements for the new facility or process. So we wanted to say that the -- delete "their process design and description," because the criteria applies to facility or the process, and then, once again, we're trying to get into the idea that for an existing facility, it only goes to the process and not necessarily limited or inclusive of the building because of the change in the criteria over the time period. And then we say the baseline criteria shall not apply to existing facilities or processes, even if the new process is housed in or adjacent to an existing facility or process. Moving into the Item No. 1, quality standards and records. We suggest that rather than say the design must be established, say the design must be developed. We look at developing things rather than establishing things. In

accordance with, instead of saying a quality assurance program, we say establish management measures, and, once again, when we talk about management measures, we feel that they're all-encompassing, including the safety programs, the testing, inspection, maintenance and what have you.

MS. ASTWOOD: Can I ask a question real fast?

MR. KILLAR: Yes, ma'am.

MS. ASTWOOD: Even if it's enclosed in or adjacent to, what -- I don't understand the problem with adjacent to, based on your previous argument about enclosed in a building.

MR. KILLAR: I'm glad you asked that question. Don, can you explain that?

MR. SILVERMAN: I think I can explain what we're trying to accomplish with the words. That is that you can have a new process in a facility, that assumes it could be, for example, or adjacent to, and I think we were just trying to clarify that, at least based on design criteria, it would need to be applied to the new process, for example, but would not be dedacted into an existing structure or an adjacent structure. I think that's what we're trying to accomplish.

MS. TEN EYCK: I'm sorry, I still don't understand. What is the significance of an adjacent structure that you would build that might be a new structure? I can understand that -- that wasn't the intent?

MR. SILVERMAN: A preexisting structure.

MS. TEN EYCK: Okay.

MR. KILLAR: Basically, what we're saying is that back to what I said earlier in our introduction section, that we've gutted a building. Well, maybe we've only gutted half of the building and some of the existing equipment is still being used for whatever it was used prior to the change. Only the new equipment that's been installed in that building design criteria has to be applied to, not the equipment that remained in the building, and that's what we say, adjacent to or -- to an existing facility or process. What we're trying to do is basically limit the design criteria to the new process or new equipment or new facility and not have to worry about, because this is in the same building or the building around it hasn't changed, that we have to worry about applying that criteria to existing facility, structure or process. We're trying to segregate it, but I'm not sure whether -- Heather, is that clear?

MS. ASTWOOD: I understand your argument now. I just feel that maybe those words need to be worked on a little bit, because that could also be interpreted to be a brand new building adjacent to an existing building, it wouldn't apply.

MR. GOODWIN: That's not what we intended.

MR. KILLAR: I had some similar concerns. That's why I asked Don to explain it. I don't want to trip over my tongue. The next item is Item No. 5, under chemical protection. What we would do is revise that so it will read now the design must provide for adequate protection against a chemical risk produced from licensed material, plant conditions that affect the safety of licensed material, and exposure to hazardous chemicals produced from licensed material. We're trying to get away from a lot of the verbiage in there talking about the hazards that may impact the storage, handling and process, that we feel it says the same thing, it just says it a little clearer. And I think we did capture in that the point you made earlier about the -- it's material and the licensed material, as well. On the emergency capacity, Item No. (II), we just inserted "on-site." "Evacuation of on-site personnel," that we didn't want to be involved or concerned about the evacuation of off-site.

MR. SHERR: Why do you want to change the word hazards to risks?

MR. KILLAR: Well, what we were trying to do, we were talking about the chemical risks and trying to capture in the chemical risks the risks -- you have it delineated the hazards due to the storage, handling and processing of licensed material and against chemical exposure. What we were trying to do is make that a little bit simpler and more concise by just talking about the chemical risks produced from the licensed material, plant conditions, with the plant conditions capturing storage, handling and processing that affect licensed material. Say for licensed material and exposure to chemicals.

MS. TEN EYCK: Let me ask you something. Back on page 10, under integrated safety analysis, double (II) has the similar concept of chemical hazards. Did you not have a problem with it there, but you have a problem with it in this section?

MR. KILLAR: Well, one of the reasons, too, it was just pointed out to me, Clifton, is that we also used the word hazard rather -- I mean, risk rather than hazard, because that's the wording that was used in the MOU between the NRC and EPA. They used chemical hazard rather than risk. But I'm not sure as far as -- Don?

MR. SILVERMAN: I don't think we had this problem in that part. It's not the risk versus hazard language. It's the part that we added that says risks or hazard produced from licensed material, plant conditions which affect the safety of licensed material. It, again, tracks that same sort of recipe we've used in the past, a little bit better than the language that you had in there.

MR. EDGAR: I think this point is, though, in, back in C, under integrated safety analysis, in the first three bullets under that, we talk -- we left in radiological hazards, chemical hazards and facility hazards, and the question was did we not have a problem with them there. I think maybe we just missed them.

MS. TEN EYCK: Well, we're interested in having consistency and in representing the similar things in a similar manner. So I was just trying to flesh out exactly what your concern was.

MR. KILLAR: I think as Don pointed out, we didn't have a problem with hazards or risk. We

were using risk to be consistent with the MOU and we just overlooked it back in the other section. Whichever one you're most comfortable with, I don't think we have a problem with risk versus hazards.

MS. TEN EYCK: I understand. Thank you.

MR. KILLAR: Over under Item No. 7, the utility services. We say -- we change the definition to read "The design must provide for continued operation of essential utility services." We didn't think that the rest of that item really helped and, in fact, may add confusion as to timely emergency power, what that's supposed to be and things. Most of the equipment is designed for fail-safe. If you lose power it will shut down in a safe mode and stuff. So we weren't too terribly concerned with it, but we weren't sure what was intended by timely emergency power to items relied on for safety. So we felt to delete -- eliminate that, as well. Item No. 8, what we've done in Item No. 8 is we've actually combined Item 8 and Item 10 together, because we felt that when you deal with inspection, testing and maintenance, you also are concerned about monitoring of equipment to assure that it will continue its operation, safe operation. So we revised eight to read "The design of items relied on for safety must consider the need for monitoring, periodic inspection, testing and maintenance to assure their availability and reliability when needed." That way we captured what we thought was the concept that you were trying to get in intent as far as the controls, because we felt what you're looking at in controls is the monitoring of the safety systems with the instruments and controls. MR. EDGAR: Felix, didn't we decide to add actually monitoring to the title of it? MR. KILLAR: I thought we left it the way it is, but certainly we say monitoring, inspection, testing and maintenance. Then as a result of that, we deleted Item 10 all together. Then Item B, we deleted the first sentence, facility and system design must be based on the defense-in-depth practice. The reason for deleting that, while defense-in-depth I think is a well known concept and used in the reactor side of the world, other than double contingency in the fuel cycle facility, I'm not sure how the term defense-in-depth could be applied and the concern that it could be applied from several different perspectives. And by using it here, we're concerned that it may have caused you more problems in understanding what we were trying to accomplish. So that's our reason for deleting the term. We went on to change, in the next sentence, to say "The design process shall assure that, to the extent practical, engineered controls or control systems are preferable to administrative controls to increase overall system reliability and features are incorporated to enhance safety to meet the performance requirements of 70.61." Once again, we felt the intent here was to give the preference to engineered controls and control systems over administrative controls, where administrative controls being personnel intervention type controls, and that was what we were trying to capture by rewriting this section to say that. I'm not sure exactly what your intent was. That's what we thought it was and that's why we re-wrote it this way. Maybe if you can give us more insight on what you're trying to capture with that, to make sure we understood that.

MR. EDGAR: I think we also wanted to bring out the point that you can have both passive and active engineered controls. So you don't want to -- you don't want to bypass an active engineered control, because you don't like active controls. So we essentially substituted engineered and administrative for passive and active.

MR. SHARKEY: I think with this one, though, it really goes a little too far in the respect that you're trying to codify a philosophy and really what you want is a low risk and whether it's with administrative or active controls or passive controls, as long as the function works to reduce the risk so it's acceptably low, it shouldn't matter. I mean, as a philosophy, you prefer the passive controls to administrative. That doesn't mean that they may not even be preferred. As long as the risk is acceptable, it shouldn't matter what control you have.

MR. LEWIS: I agree with you that the bottom line is meeting the performance requirement. This is a risk-informed rule, not a risk-based rule, and these requirements are risk-informed in that we take deterministic requirements and focus using risk information on the deterministic requirements that are important. I think it's very consistent with what the Commission's guidance on what risk-informed means is. As far as the engineered control versus the administrative control, I don't have much of a problem with that. But deleting the sentence about defense-in-depth without -- what I thought the second sentence just modified the first sentence. That might be more of a concern. Acknowledging that I'm not really defining what defense-in-depth means for these facilities.

MR. VAUGHAN: Let me just mention a comment about the passive and active controls. There is -- you've got to be careful when you talk about that, because you've got to say more than passive or active. For example, there are ways to design active control systems where they're actually self-checking and fail-safe. That's probably the best of all worlds, because nothing has to happen except the system work, and it's an active system and it's basically self-checking as it operates. Passive systems, you have to make a conscious effort to go out and do something to verify that they are still there. I mean, they don't change their configuration too much, but you do have to go out and do something pro-actively. Then there's also engineered active systems that aren't self-checking and you have to go out and then you begin to get some definition. But we need to be careful with how we define that because in some cases, you might think you're doing something good, but, in fact, you really haven't done exactly the right thing.

MR. SCHILTHELM: What did you mean by defense-in-depth practices? If we don't understand.

MR. LEWIS: What we're going to address in the SRP that we haven't yet. I noticed that this is something commented on in the SRP chapter.

MR. SCHILTHELM: I think we do, too, but you're implying that we might not have a level of agreement by what's meant there and that kind of concerns me when it pops up in rule language. I think we use defense-in-depth, too, but I hear some question as to what it means. MS.

TEN EYCK: I think the main thought is that we would prefer to have systems where a failure of a single item relied on for safety would not result in some type of a problem, and that's where we're coming at the defense-in-depth concept.

MR. SHARKEY: Again, though, if you achieve the objective that the risk is low, then, if it's one control, then it shouldn't really matter. You don't need the defense-in-depth. It may fundamentally seem like you're safer if you have defense-in-depth, but you may have a number of

weak controls as opposed to one very robust control and that one very robust control may afford you more protection than a series or defense-in-depth. So as long as you're achieving the objective that the risk is low, I don't think the codified defense-in-depth is appropriate.

MR. GOODWIN: I think you have to be careful where you make the distinction of what requires the defense-in-depth. If we're talking about the high risk systems, that's one thing, and double contingency is certainly a part of that, from a criticality viewpoint. But I think for the lower risk systems, I kind of look at defense-in-depth as diversity and redundancy or multiple controls, things of that sort. And certainly for the lower risk systems, that's not something I think that we want to commit to. So that's, I think, where our real concern is coming from.

MR. KILLAR: Moving on. I just want to point out that we've deleted the last sentence in that same paragraph because we feel that the other provisions of Part 70 require that you correct any unacceptable performance deficiencies and what have you and to put it in this section is redundant and I'm not sure it really actually helps the discussion. Moving on in to C, the preliminary process hazards analysis, once again, at the end of that first paragraph, we added that it requires a license amendment under 70.72 to be implemented, to indicate that it only applies when you have to do an amendment, license amendment for existing facilities. In the first sentence, we change "satisfies" to "address," because we feel that it gives -- that you're actually addressing these and I'm not sure satisfy connotes that it may have to be something that would be reviewed and checked off or what have you, where I think we're addressing the concern rather than satisfying the concern. There is a minor typo in the next line, you've got it listed as 70.60, and it should be 70.61 as far as requirements. Over on the Item 3, Item 3(I), once again, we have the defense-in-depth strategy. We need to understand what you mean by defense-in-depth strategy, beyond double contingency. So that's something we certainly need to talk about and make sure we understand that. We've deleted (II), the administrative controls, supplement to design and engineered controls and administrative controls are expected to be identified as relied on for safety. We felt that from what we did earlier, it encompasses that and we didn't think that that provided any additional value. Plus, when you identify the controls or what have you in your preliminary process, you're probably not going to get into that kind of detail in the preliminary process analysis. So identifying those, we're not sure that that's going to be that meaningful. Then the Items 4 and 5, we basically deleted and the reason for deleting these two items is that when we first started talking about the preliminary safety analysis and providing it to the NRC for information, we certainly felt that was a reasonable thing to do, that we do a preliminary safety analysis. And the history has been the companies typically come in and discuss this with the NRC prior to moving forward, simply from the risk aspect of taking the risk and not being able to get a license amendment or license the facility unless these things are covered. With that understanding, we're willing to provide that. Our concern was that when we've got these wording back, it looked like it was going beyond what we previously had done. You're asking for more than what we've previously done, plus you've added additional regulatory burden of now justifying the differences between what you did in the preliminary safety analysis and in the integrated safety assessment or summary integrated safety -- or integrated safety analysis summary that's going to be submitted. So you've added a considerable regulatory burden on there, and so what we see is what we thought was going to be something that was helpful is now

becoming more of a regulatory burden and we're not sure of the benefit of doing that. So that was our reasons for deleting those two provisions. We're certainly open to discuss this, because like I say, we will be preparing these things along this line, but we're trying to understand why you've gone the direction you've gone with this. We viewed it as we're providing it for your information, so you have an idea of what's going on, what changes we've planned as a result and we're going to be needing a license amendment, and so it's helpful for you to understand that. Additionally, it gives you the opportunity, if you see something that really gives you grief, to make us aware of it, so we can make sure we address it adequately. But by taking it the next step and starting to talk about identifying the differences between the two of them and what have you, now it goes from what we thought was a helpful program to a regulatory burden, and that's kind of where we're coming from. But we'd certainly like to discuss it a little bit more.

MR. SCHILTHELM: What place does submitting a preliminary hazards analysis do you have in the regulatory process of obtaining a license amendment, functionally? Information transfer I can understand.

MR. LEWIS: We discussed this at the December 4 public meeting. There is a very good discussion of this in the transcripts for those. It generally meant somewhere that about 30 percent of the design and at a point before construction proceeds. These requirements are -- although they apply to the existing facility, they're geared more toward the new activities that we're starting to get into.

MR. SCHILTHELM: But there is no review and approval step in this process.

MR. LEWIS: There is a review step. There is not an approval step.

MR. SCHILTHELM: Should we then expect a round of questions based on the review? It seems an administrative process that can quickly get out of control and it has no real place in the licensing of a new facility, because there will be a license amendment submitted that has an ISA summary with it.

MR. SHERR: As we discussed, I guess it was in December, but I will take and consider what you're saying. I recognize this is kind of a nebulous area that we're talking about in this, because we're not talking about something we're approving, but we're talking about something submitted to NRC. I think the comment that Charlie made earlier is something -- they're the kinds of things that typically you'd share anyway early in the process kind of thing. Because what we're trying to avoid by this whole thing is a situation where everything is designed and in place now in this thing and all of a sudden we look at the application and we don't think that does the job and they say, yeah, but it's so expensive. But if it had been dealt with at an early enough stage in the process, it wouldn't have been that expensive. Obviously, we're not interested in putting the high burden on you and all this thing. It was trying to work that process, to get information ahead of time so that, okay, if you're going to pursue it that way, that's fine, but at your own risk kind of thing. So I don't know, but I agree with you that there is this nebulous character; that they're submitting it, but it's not being approved on that basis.

MR. SCHILTHELM: Do you feel, Ted, that we need a regulation that forces us to communicate, when there is no regulatory end point to that communication?

MR. SHERR: Well, like I say, I think you might be right. There is this nebulous aspect that we need to take a look at. I think our intentions are good.

MR. SCHILTHELM: I agree, but in regulatory space, it just seems too open-ended.

MR. SHARKEY: As far as our risk, I don't think us submitting anything preliminary is going to reduce our risk anyway, because there is no time-frame for you to review or provide us feedback. We're still at risk of finding deficiencies or what you perceive as deficiencies in our safety analysis. I think our strength is that we do come in to the NRC when we do significant changes to the facility, we walk through what those changes are.

MR. LEWIS: We've come full certain, I think, to a certain extent, because we had discussed this in December and our general feeling was maybe we should require this to be performed, but not submitted, and it was my impression from reading the transcripts that NEI did want this to be submitted, and so that's why we put in here to have it submitted. And there was a letter of December 22nd, I think, that backed up and said that NRC will review the submitted preliminary hazards analysis. So if there is a change in the position, that's fine, we'll consider it.

MR. SCHILTHELM: I think you're hearing a change in the position. If that's what we implied or said before, what you're hearing is a change. We just don't see it as a regulatory need.

MR. KILLAR: I agree with you as far as what we said in the December meeting, and we sent a letter, and we indicated that we would be willing to provide this. What caused us to change is that the -- you've added this provision to now add an additional burden on us to provide a description of the differences between what's in the preliminary process analysis and what's in the ISA summary. So what's happened was as an agreement to provide you some information, basic information and some scoping ideas, basic designs, now it's become more of a regulatory burden because now we have to justify differences from what we previously submitted to you as an information document to what we're now providing you as the integrated safety assessment.

MR. LEWIS: We'll take the comment. As Drew points out to me, the SRM does support the preliminary ISA. So we'll have to maybe provide some options to the Commission.

MR. SCHILTHELM: Don't misunderstand, though. We're not arguing that we not do them. Because, you know, we made comments to the three sections that we would do them or just arguing that we not submit them.

MR. LEWIS: If I could quickly invoke the dying horse. There is a section in the paper I mentioned, the white paper on risk-informed performance-based regulation. It's SRM for SECY 98-144. It talks about risk-informed and defense-in-depth approach and what defense-in-depth means. We viewed what we had written in the rule as meaning the same thing that they've written here, acknowledging that it needs more guidance to apply to each facility. This is global to all

NRC activities.

MR. SCHILTHELM: That's in the white paper?

MR. LEWIS: Yes. MR. EDGAR: I think one of our other objections maybe possibly to the defense-in-depth statement was that -- I mean, we obviously know that you prefer it and we probably do, too, but I remember the statement said it must -- it's a must, not should or is preferred, and that might be part of our objection, also.

MR. KILLAR: Moving on to Item D in that same one. We deleted the first sentence, for a new process at existing facilities, subject to section, the licensee to file an application for amendment to the license in accordance with 70. We removed that because the determination for filing an amendment to the license is in 70.72 and by having this provision in here, it sounds like you're adding another section where you have to provide a grounds for license amendment. So we felt that it was inconsistent to put it in this section and it should be only covered in the changed requirements section of 70.72. As far as the second sentence, we felt that we do agree with the second sentence, that nothing should be construed as apart from providing relief from the environmental requirements of 70.73, 70.71 and 10 CFR 50. One thing that we wanted to point out is that we felt that the -- we're a little concerned about consistency, because we felt that we needed to make sure that throughout 70.65, when you talk about the integrated safety analysis summary, it needs to be identified as the integrated safety analysis summary, to be consistent with the definitions and also to be not confused with the integrated safety analysis. So when we talk about the first Item A there, we felt it would be better worded, rather than say 70.72, including a summary of the integrated safety analysis, we say including the integrated safety analysis summary and then "and" a description of the management measures.

MS. ASTWOOD: So changing summary of the integrated safety analysis to integrated safety analysis.

MR. KILLAR: Right. And like I say, I would just change that to be consistent with the definition, the terms used throughout the rest of the regulation. And we had the same -- a similar situation in Item B. You say the summary of the integrated safety analysis. Once again, we reverse that to say the integrated safety analysis summary shall be submitted. And in the last line of that same paragraph, the same thing, the integrated safety analysis summary shall contain.

MS. ASTWOOD: That's good.

MR. KILLAR: In Item 1 under there, it says a description. We said a general description of the site. We're concerned about a definition of description. We felt a general description better applies to what the description should be. We also wanted to point out that the -- we didn't put words in here to this effect. We certainly believe it's appropriate, but we just wanted to make clear that in other parts of the license application, you have a general description. So when you submit the summary, you can reference that general description. You don't have to repeat the general description again.

MS. ASTWOOD: If it applies, I mean, the reason we repeated it again in here is to make sure that everything is covered in the initial description, because I can see situations where they might be different.

MR. KILLAR: Right. Or you may need some additional detail now. One of the things we talked about is do you put additional detail in here, so you end up with two discussions of a description, or you just beef up the general description and refer back to it. MS. ASTWOOD: Yes, you can do that.

MR. KILLAR: Once again, Item 2, same type comment, a general description of the facility, with an emphasis on those areas. We put in the general with the same type of referencing. Then Item 3 we say a description of processes analyzed rather than description of each process analyzed at the -- the processes could involve individual processes that make up a total process. So we felt by saying each process would be hard to understand or --

MS. ASTWOOD: Well, wouldn't each process be captured under a description of a larger process?

MR. KILLAR: What we're trying to do is capture the whole thing under the total process for, say, like the process for the production of U-308 from UF-6 or U-02 from UF-6, versus the individual process of producing ADU and then taking the ADU and precipitating it and what have you. So the processes will be described, but sometimes they may be combined. So we felt that by a description of processes, it was a little bit better, in general, than talking about each process. And then we talk about analyzing the integrated safety analysis and then we talk about the accident sequence for each that could exceed the performance criteria 70.61. So what we would do is we'd provide a description of the process and then the accident sequences that could lead to the performance criteria.

MS. ASTWOOD: You're deleting it.

MR. KILLAR: We're deleting including the theory of operation because we feel the theory of operation is included also in the description of the process.

MS. ASTWOOD: And then what else did you change? Say that again. MR. KILLAR: I'll just read the whole thing. Item 3 will now read, "A description of processes analyzed in the integrated safety analysis and accident sequences for each that could exceed the performance criteria 70.61."

MS. ASTWOOD: Would that be unmitigated accident sequences which you could exceed?

MR. KILLAR: I would think that we'd look at that. Typically, we are looking at the unmitigated accident sequences, but I'd have to go back and think about that a little bit more.

MS. ASTWOOD: Which would exceed the performance criteria.

MR. KILLAR: Yes, performance criteria 70.61.

MR. SHERR: And still maintain reference to 70.24 somewhere there.

MS. ASTWOOD: Yes. That was taken from another section. So we would have to include that somewhere.

MR. KILLAR: We haven't gotten to that part yet.

MS. ASTWOOD: Okay.

MR. KILLAR: What we've done, we've broken that into another item, we made that Item No. 4, and we say information, Item No. 4 reads, "Information that demonstrates a licensee's compliance with design requirements for criticality, monitoring and alarms in 70.24." So, I'm sorry, we broke that into another section. So that is now Item 4. And what was Item 4 now becomes Item No. 5 and because we made Item No. 4 No. 5, we decided we'd delete No. 5.

MS. ASTWOOD: That's easy, isn't it?

MR. KILLAR: Actually, we did delete No. 5, but not for that reason. We deleted it -- I could use some help on this. I'm trying to remember what all the reasons for deleting --

MR. SHERR: I think what you did, if I caught what you're saying, is that in No. 3, you pulled it in.

MR. KILLAR: We've incorporated No. 3, right.

MS. ASTWOOD: What about the second part of five, how the licensee meets the performance requirements?

MR. KILLAR: Well, we felt that kind of captured -- is captured in seven, when you talk about description of the management measures, absolutely, each item relied on for safety.

MS. ASTWOOD: I'm not sure. We were -- that came from the slide in the December 4th meeting, where we talked about assurances and controls, the last bullet on there, that this would be -- that's the -- that's where that description would fall and this is -- here's our accident sequences, items relied on for safety, and here's how we meet the criteria of the rule. That's an important point to make. Not necessarily, you know, we have -- you know, here is our analysis, but how we demonstrate we meet the rule.

MR. KILLAR: And what we're saying -- and I allude back to what I said earlier about management measures. When we talk about management measures, we talk about management measures from the whole scope of protection of the -- of meeting the 70.61 criteria. We talk about the safety program, how the safety program is implemented, including the inspections,

tests, maintenance. It's fully encompassing when we talk about management measures. So I think what you're asking for we already encompass in our thinking of management measures.

MS. ASTWOOD: That's not in one of the management measures where you changed "demonstrate" to "evaluate."

MR. KILLAR: Id' have to go back and look and see.

MR. SCHILTHELM: Maybe that's a good point to step off the rule language for just a second and if we go back to the presentation you made a little earlier, it seemed that you described three lists. You have a list of items relied on for safety, a list of processes with accident sequences that could exceed the thresholds, and then a list of items that are the sole items. And with each of those lists, then you would have to provide information as to what that item does and the assurances to keep that item in place. I think our bigger problem is with the lists and when we went into this ISA summary thinking, I don't believe we envisioned a detailed list of every item relied on for safety. I think we envisioned a more -- I'm not sure how to describe this -- a more qualitative description of the kinds of controls that are in place to assure safety rather than a detailed list of every item that is, quote, important to safety. Charlie can probably add a little to this, because he articulated it pretty good yesterday, I think. Maybe he doesn't want to. But this implies just a very detailed list of all the items relied on for safety and it -- out of that list, you have to pick -- we're either going to have to identify it to you or you're going to have to pick out which ones are really important or which ones are high risk. And we envision the ISA summary doing something at a higher level than that. I'd like to hear your thoughts on that.

MR. VAUGHAN: Just a few. Steve I thought did pretty good. But we definitely have not envisioned a list of what we call items. I mean, we have discussed that a lot and the latest thing that we've come up with as we think through this is that it's not so much the items that are important, but a description of the safety functions that are performed to make that process safe. And the other thing is this is a publicly consumable document and so, therefore, the document needs to be written in language that the public can actually understand and use.

MS. ASTWOOD: Yes, it's a publicly consumable document and I agree with that. But at the same time, I mean, it can't be boiled down into something that's not useful. It also has to be useful in our review to make a safety basis and useful for us to be able to then get a idea of the ISA work that you've done so that we can come to the site and do a more detailed review.

MR. VAUGHAN: And I agree with that, but when the term "item" is used and we may be completely off base, but our universal reaction when the term "item" is used, then we think of listings of valves, flow meters, meters, instruments.

MS. ASTWOOD: I have an answer for you. We have done a lot of discussion on exactly that same topic and where do you draw the line. Is the item the pump, is the item the valve, is the item the bolts that hold the pump to the floor, the grade of the concrete that hold those bolts in? I mean, there is an infinite range of items relied on for safety. What we -- and we were trying to define what that line is in discussions with you and in discussions with ourselves, trying to make

a definition of the world item relied on for safety. It's very difficult to do and what we decided to do, the approach that we took in this case was that you would decide what that level is for your site for each process. It's you guys know best your plants and what is and is not important, and you develop that list based on what you find in our ISA. If it's important to you in your ISA, when you're doing your ISA and you relied on it to prevent accident, it goes on your list. It's what you decide to control in your management control systems. You guys must have a list of your items that you're relying on for safety, because you have to assure that they're reliable and available. You have to put certain maintenance systems on them. You have to make sure they don't change. If they're something very important to you, you have to really make sure they don't change. So this is not something that we think is outside of what you would have done in your normal processes to put together a list of items relied on for safety, as defined by your ISA.

MR. VAUGHAN: We've always committed that at the facility, that we would have that list. And you're exactly right. There is no way to manage the program unless you make up an item-by-item list. But we don't believe that it's appropriate to have to reproduce that list in terms of a summary of the ISA work that we've done. That's where the disconnect is.

MS. ASTWOOD: I understand that and what we were looking at originally were all of the accident sequences, that's how the ISA summary, we started looking at all of the accident sequences and a much more detailed list of what you did in your ISA, and that turned out to be cumbersome and a lot of information. So what we were trying to do here is what are the fewest things that are -- that we could get, a list to me is one item rather than 40 volumes of accident sequences and all of the information that goes along to support an accident sequence. Here is a list that you have already compiled that you keep on-site. You have maintained it. It is something that we can use in our review. It's publicly consumable, it's something we can have here. The public can see that we've actually done a review of your items relied on for safety, the processes with the largest hazards, the concerns, and the high risk or the accident sequences which exceed the performance criteria. We felt that with that information, that limited amount of information, that we could actually do a review and have enough information to come to your site to do more detailed probes into the areas of your ISA that we have learned about from the summary. That's why we ended up asking for that list, because we felt it would be less burdensome for you.

MR. SHERR: Tell me again what you propose instead.

MR. KILLAR: Basically, what we're talking about is providing a description of the safety functions and the measures, management measures to assure those safety functions. Our concern is when we read -- when we start talking about lists, that we're going to have to list we're going to do this, this and this, when we're talking about safety functions, we're talking about maybe to the level of we will use moderation control in this area, we'll use safe geometry in this area, things like that. But what we're concerned about is when you start talking about providing a list, that we'll list what happens to specifically control moderation, what happens to specifically control geometry. So it's that demarcation as to where you go from a general description to the very specifics.

MR. PERSINKO: But I just heard that you all have a list and you must have a list, so what's the

difficulty with putting the list in the summary?

MR. GOODWIN: I think the thing that we're concerned about, if I may use the example, let's say a thermocouple as a temperature indicating device. We do not want to have to -- let's say the need, by function, is to monitor the temperature of a certain process. I don't want to have to specify a thermocouple, per se, or any other device by manufacturer, model, serial number, plant number, and you don't need that.

MS. ASTWOOD: Right, and that is up to you on how you want to define -- what detail you want to put in that list. I mean, you can say --

MR. GOODWIN: Temperature indicating device.

MS. ASTWOOD: Temperature indicating device and the safety function is to regulate the temperature, or you could put in that you want a thermocouple, without saying what the name is, to regulate the temperature of this device. It's up to you on how you want to define that, and that's kind of consistent with how we've done the licensing in the past. You provide the level of detail that you feel is sufficient, we review it, if we have additional questions, we talk about them, but that way you can make it as detailed or not as detailed as you want, which changes, you know, your change processing the amount of information you would have to submit, also.

MR. GOODWIN: And that's the other concern, is that we don't want to have to make numerous changes to the summary just because we're changing --

MS. ASTWOOD: Exactly, and that's something that you would think about when you're putting together that list. Exactly.

MR. VAUGHAN: I think it's still the word "item." When you put the word "item" in the regulation, it just -- we just react that says that that's something different than our ability to pick and choose how we go about describing this thing that's called an item. It means something very specific to us and it seems like that there ought to be some better way to say that, particularly if there is some liberty for the licensee to best construct that kind of summary. So we talk about what the purpose of that summary is that the licensee has to construct and let them construct it and get away from terms like lists and things like that.

MR. PERSINKO: I thought the term items, items relied on for safety have been in this rule from outset and I haven't detected people wanting to change that term.

MS. ASTWOOD: You guys put items in at the very beginning and took out site, structure and --

MR. PERSINKO: They have been, but we're trying to accomplish a summary document.

MR. KILLAR: What we're trying to say is that what the function of those items are rather than listing the individual items.

MS. ASTWOOD: This says a brief list, which indicates a safety function, the item in the safety function. We definitely agree with you that safety function is what's necessary, but a list format seems to be the easiest way to do that.

MR. EDGAR: We don't have a problem with the idea of items relied on for safety. It goes through the whole ISA process. Our problem is in the ISA summary, getting into too fine or too microscopic a list of items, and that's what our whole feel is here.

MS. ASTWOOD: That's exactly the concern the staff had, not to get into the minutia of these facilities and all of the details. But when we tried to write down words on where to draw that line and how to do that, it's very difficult and we thought the best way is for you to define it when you make your list.

MR. EDGAR: We thought we had kind of a model for this. In a lot of our licenses now, we have to -- in the criticality safety section, we have to describe methods or safety functions that we apply to the different systems from a criticality safety standpoint, and then we say for this system, we're going to use concentration control or moderation control or safe geometry and we have this suite of different kinds of controls, and we describe by control type what we're going to use. I think we want to do something analogous to that for our summary of items here.

MS. ASTWOOD: I would have to check with the real ISA experts who are going to have to review that.

MR. LEWIS: I think the rule, as written, doesn't allow you to do that.

MR. EDGAR: If it does, then that's, I guess, what we want. Maybe that was getting too fine into it, I don't know.

MR. KILLAR: That was the intent.

MR. PERSINKO: The word "list" scared us, that's all.

MR. SHERR: We do want to list, but you determine a list of items.

MR. PERSINKO: But we do want a list. We don't want to have to dig through lots and lots of paper to find what it is. We want to just find the list.

MS. ASTWOOD: Can we go through the changes in the words again? No. 5.

MR. KILLAR: Starting with No. 5.

MS. ASTWOOD: You deleted No. 5.

MR. KILLAR: Yes. We deleted No. 5 and what was No. 4 now becomes No. 5, which says a description of the integrated safety analysis team qualifications and methods used to perform the integrated safety analysis. That is now No. 5. Item No. 6 is now a brief description of the safety functions of the items relied on for safety, which have been identified pursuant to 70.61(e). Once again, that's where we're trying to get away from the list idea; to still provide you the description of the safety functions of the items relied on for safety. And then seven is a description of the management measures applicable to such items relied on for safety, and so this is the safety program which will be applied to those items relied on for safety, whether it's criticality, radiation protection, whether it's maintenance, whether it's monitoring, whether it's testing, inspection. That's all encompassed in that management measures. We've deleted Item No. 7. Item 8 stayed the way it was. We deleted Item No. 9 because we felt Item No. 9 was already captured in Item No. 6. Now, I recognize, from your discussion earlier, you are concerned with when there is only a sole item preventing or mitigating the accident sequences versus the double contingency.

MS. ASTWOOD: And that might not be captured in your -- I mean, that particular item, yes, would be in your table, but --

MR. KILLAR: It may not be obvious to you.

MS. ASTWOOD: -- an indication that it was a sole item, without all of the accident sequence information wouldn't do that. So I think that does have to be broken out.

MR. KILLAR: Right. We recognize we're going to have to work on that one. And then Item 10 becomes now nine, which we did not make any changes in that one there.

MS. ASTWOOD: So you want to take out the processes that contain accident sequences.

MR. KILLAR: What we've done is we've actually put those now in Item 3. What was seven, a list of the processes, now is a description of processes analyzed in the integrated safety analysis. So they're included in Item 3. So that's why we've taken Item 7 out. It's still there, but it's now in a different section.

MR. SHERR: I think the key thing is what Item 3 says.

MR. KILLAR: Okay. Item 3 now reads -- our Item 3 reads "A description of processes analyzed in the integrated safety analysis and accident sequences for each that could exceed the performance criteria of 70.61." And we felt that's basically what you're trying to do with Item 7, when you asked for a list of processes that could exceed the performance requirements of 70.61.

MR. PERSINKO: I think the question earlier was about mitigated/unmitigated. I mean, theoretically, I could read that to say your answer would say we don't have any.

MR. KILLAR: I agree that that's something we have to address as far as mitigated versus unmitigated.

MR. EDGAR: Could I -- there is one small point here that I -- in what used to be Item 4 and is now our Item 5, where it talked about description of the integrated safety analysis team, talking about qualifications and the methods. I think in Rob's slides this morning, we thought that with the ISA team qualifications were part of the documentation of the ISA kept on-site and not submitted.

MS. ASTWOOD: We had it in there because of the review process that would happen here. The way this would work, it would be submitted during license application and we would review that prior to coming to the site. It was information that we wanted to --

MR. LEWIS: This may be a summary of the qualifications, but the actual data of the qualifications would be kept on-site and we do need that information to ensure that since we're not looking at the ISA, we're doing a sampling of the ISA, we go to your site. We need to have some assurance that the ISA was performed properly and the only way we see to get that assurance is through qualifications and a description of the methods. Using established methods, I should say.

MS. ASTWOOD: Do you have anything to add?

MR. SHARKEY: I guess when you're talking about qualifications, what's the acceptance criteria, when is somebody qualified, we make that determination at the facility when somebody is qualified, but there is no acceptance criteria, so to speak. I'm not looking for acceptance criteria. I think it's in our domain to identify who is qualified. I think maybe in the summary, it's just says that we use a multi-disciplinary team that's qualified to perform ISAs should be an acceptable summary, in lieu of getting into this guy has a degree and this.

MR. VAUGHAN: I wanted to kind of ask a question that goes right in line with that. Right this minute, in our licenses, in a number of areas, including those that have ISA chapters, I think there are qualifications listed for a number of different key functions that have to be performed and in the ISA section there are commitments with regard to how the team will be constructed, et cetera. So is this suggesting that we have to go farther than that when we put together an ISA or if our licenses are complete and we've defined our programs well enough, then all we have to do is affirm that this work was done in accordance with that part of the license. MS. ASTWOOD: I don't have an answer for that right now.

MR. LEWIS: I don't have an answer either. I just wanted to clarify that. One thing is we're asking for a description of the qualifications, not the actual qualifications themselves, and I don't see this requirement as any different than the qualifications you have to provide us to meet the radiation protection program requirements of Part 20. You have to specify the qualifications of the radiation safety officer you're going to use. This simply says you have to specify the qualifications of the ISA team that you're going to use.

MR. EDGAR: That's in the chapter, though, that Charlie just talked about, referenced to that chapter.

MR. GOODWIN: We're just trying to eliminate the duplication, because we, like GE, we have a section in our license on ISA and there are qualifications that we've committed to in there, as well as the training and qualifications for other chapters in the general conditions of operation. But we're just trying not to have to duplicate that every time we do an ISA. If we can reference it, that's okay.

MR. LEWIS: If that's all you meant, we support that. Our SRP, the way we're trying to structure it right now, the ISA chapter would direct the reviewer to go look in the qualifications chapter to make sure that the information is either there or here. It can be anywhere, but it should be somewhere.

MR. KILLAR: Heather, do you have anymore questions on that or any other? MS. ASTWOOD: No. My only concern is with the list of the processes. I'm not quite comfortable with that.

MR. KILLAR: I think we're shooting for the same thing. It's just a matter of how to get there and the level of detail. We're concerned about providing lists of information; rather, a general description of information. So it's just going to be a matter of working back and forth until we come up with what's the right composition.

MS. ASTWOOD: I think a lot of it is dependent on what you propose for three and mitigated accidents.

MR. SCHILTHELM: I hate to belabor this point, but let me ask you a question. I know several of us have submitted things. I think we asked this question last time. We've submitted things that we think our ISAs or ISA summaries -- have you looked at those things that we've submitted and were you able to draw any conclusions about lists versus -- do they contain the kind of information?

MS. ASTWOOD: The basic analysis, I guess, trying not to get into too much detail, in that is there are parts of each type that -- the types that were submitted were very different in format, in content, and extent, and there are different types, parts from each one that are good and that does contain the information that we would need, in the format that we would need. So it's a combination of ones. Dennis will answer better than I can.

MR. SCHILTHELM: Let me ask it a different way. As a manager, I'm always interest in throw weight. Is the throw weight 200 pounds or is it -- I mean, you've seen what we've submitted.

MR. DAMON: It has to do with accuracy. If you're real accurate, you can use less weight.

MR. SCHILTHELM: Fair enough.

MR. DAMON: I'm being facetious. But if you do a real good description -- I'm the one -- I'm the one that has read the submittals and as a specific example, the list of items relied on for safety, the ones that B&W -- the list that B&W submitted, the list that GE submitted were -- both had a lot of virtue to them as formats for how to do that function, level of detail that it has to have, and they are -- they are definitely more detailed than just saying I have mass control or moderation control. The reason they have -- that the desire was that they be that one step more in detail was to avoid the situation where you have control on something like concentration from transfer from the safe geometry on-site and you have a good control system, like two active engineered controls, and you take it out and you work to some very crude, much less reliable system. Well, under the format of the reporting requirements, if all you've said is it's a concentration control, you don't have to even tell us about that. We would never know. We would never hear about it, ever. So that's the level of detail we want, something sufficient to say this is an active engineered control, a passive engineered control and something about its general nature; you know, it's this kind of a gismo. That's about the level. And both the submittals that B&W made and GE had about that level, the only defect in them was that -- the virtue of the GE one was that it was written in English. It was written in whole sentences and a full thought, and that is often necessary to communicate to the reviewer, who does not know -- remember, he does not know the system like the people at the plant. So it's often necessary to explain to them this thermocouple is in here because we're doing this with it. You can't just say thermocouple XYZ and he doesn't -- he says, well, what is it doing. So when you write a full sentence that says the item relied on for safety is this and it's doing this function, that's the kind of -- now, the virtue of the B&W format was that it was nice, it had several items in a very formal structure. It said what the control parameter was, what the control limits on it were, and it was very nicely laid out that way. So the submittals in that particular area were good. The other big area that's a problem is a list of accident sequences and I see no easy way to submit a summary of that. You basically have two choices, submit a list of everything or submit a summary that permits the reviewer to pick from the lists something that he was going to look at more carefully. So that's the dilemma with that section.

SPEAKER: I would say so, roughly. At least missing from the list of processes is the identification of what you did or did not find in the process. Did you find an accident and the consequence level of that, that the list if you read the language that was in the list it says a list of the processes and the maximum consequence -- the consequences of the maximum accident or some words like that. So that gives the idea that if you -- because what you expect to see is, especially with respect to chemicals, you expect to see a lot of zeroes there, and with respect to crit., it is a trivial list, so all it is is a screen to go find the chemical, the ones that have actual chemical consequences. That is about all you can use it for and the ones that have "S" and "M" in them, so that is all it is being used for. It is better that than just -- I would put that in there as an one way to give the reviewer something to look at, because if we just said, okay, submit a summary of all the accidents, well, we did see some submittals that were summaries of the accidents but they were structured in a way that they were grouped, things grouped together and then zeroes put next to them and things like this, and we couldn't figure out any way to even begin to dig into that and review the thing, so we realized you needed a list of all the processes

and whether or not each one had something in it that needed to be reviewed or that you could review. By the way, by process conceptually I thinking of about the level that was in fact used in the submittals. By process I am thinking of process node or unit process. It is that level is what I am talking about, not something smaller than that or bigger like a whole -- you know, here is the whole gas process at NFS and we found nothing in it -- you know that was just a little coarse.

MS. ASTWOOD: Thank you.

MR. KILLAR: Moving on 7066, we have no problem with 7066 as written. Mark that on down. 7072, the changes and change process. We basically deleted all of Item A -- well, let me explain it -- and the reason for doing that is a lot of that is captured in our configuration management systems and we feel that the way this is written up it's getting to be far too prescriptive and beyond what the requirements for the license should be and as you go through and look at the definition for managements systems and the way we are using management systems in configuration management I think we have captured a lot of that material and so we think that the way this was written up it actually could maybe even include things that, changes that are not even regulatory significant and so that was our reason for deleting (A).

MS. ASTWOOD: What about, you know, licensee shall establish --

MR. KILLAR: Well, we actually have some words to that effect. I am just trying to find out where they are. Help, guys.

MR. PERSINKO: In the definition of management measures.

MR. KILLAR: In the definition of management measures.

MR. LEWIS: That was added to this section because it was deleted from 70.62 and the words that we have in that section are almost identical to the words that OSHA uses in their process safety management rule so we thought this wouldn't be too controversial because they are already having to be performed.

MR. KILLAR: Right. Well, I go back to what I said earlier about management measures and being all encompassing. If you go back to the definition of 70.4, management measures, we include in our definition to include configuration management. Let's see if I can find our definition and read the definition. In fact, the original definition that you had already includes, management measures include configuration management, maintenance training and qualification of procedures, audits, assurances, investigation of records management, so you know, since it was already captured in management measures we didn't feel that we needed to go through a whole lot of discussion of configuration management.

MR. WOOLLEY: The fact that we have got a change control process that's part of the rule requires the licensee to have -- so either option A or B under 70.72 requires you to have a safety evaluation and that safety evaluation process -- I think you've really got it covered by the

proposed changes -- that will require the licensee to -- satisfy that change process --

MR. LEWIS: Felix, let me try to offer some clarification. The management measures, the definition, as I mentioned at the beginning of my talk, were only things that applied to accidents and therefore only things that apply to items relied on for safety. We do indeed mean in 70.72(A) that every change to the facility needs to be evaluated to determine if it could affect, ultimately affect something relied on for safety. That would include changes to things that are not currently relied on for safety so that is why there's a separate provision in (A) and it is similar to 50.59 -- that any change to the plant needs to be looked at to see if it is indeed important from first principles, and then once you determine if it is important then you enter into these tests in (B) and (C) 70.72, so the management measures, just to finish the thought and reiterate, the management measures are only concerned with items relied on for safety even if you just specify configuration management as one of them.

MR. KILLAR: I guess from our perspective when we look at management measures we do look at a total encompassing, whether it is accident or non-accident, that we recognize that if we change something here that may not be a safety item it may have impacts on a safety item so we have to take that into consideration so when we talk about management measures it includes the safety items as well as the nonsafety items.

MR. LEWIS: I agree with that --

MR. VAUGHAN: I think that that might be one that we need to take away and talk about a little bit.

MR. LEWIS: Okay.

MR. KILLAR: Going on to (B) and (C) we have some more points in that we felt the management measures also included things such as training and as a result maybe we'll go back and look at this a little bit more and come back and discuss this at greater length.

MR. WOOLLEY: I would just say one other thing -- it was so prescriptive -- we have a configuration management system at our plant and I don't know if the plants have every single bullet here that you prescribed -- far too prescriptive. It's not that we have a configuration management system without being told --

MR. KILLAR: Okay. Moving on to paragraph (D), our preference is for Option 1 but we went ahead and marked up Option 1 and Option 2 both so we will go through and give your our comments on both of those. As far as Option 1, what we have done is we made this a little bit more succinct, at least from our perspective, a little bit more succinct and we have changed it to say the licensee may make changes to the items relied on for safety or the management measures as described in the integrated safety summary without prior Commission approval if the change -- so what we have done is we took a lot of the site systems, structures, components, computer programs and activities of personnel and incorporated those, because we feel that they are captured between the items relied on for safety and the management measures and so we didn't

think we needed to put those. Item 1 we did not make any changes to. Item 2 we did modify Item 2 to read does not remove without a satisfactory replacement. The reason to say satisfactory because we felt equivalent needed to be a one to one, exact to exact, and we may not put in the same thing we took out, as long as it met the same safety functions so that is why we said equivalent, and we want satisfactory replacement rather than equivalent replacement.

MS. TEN EYCK: May I ask something? I think there is a difference between satisfactory and equivalent. Would comparable be better than equivalent? I think that what we are trying to do is say that it is something that is fairly comparable --

MR. KILLAR: Right.

MS. TEN EYCK: -- and satisfactory, I am not sure if that stays at the level that we had in mind there, so I just want you to kind of think about that a little bit.

MR. KILLAR: Yes, I think that is certainly the intent. We will look at comparable and see if comparable will be an acceptable term to us. Basically our problem with equivalent was it made it sound too explicit, that you only could replace one for one with the exact thing that was there. We didn't necessarily feel that we had to do that.

MS. TEN EYCK: That is exactly why we put that modification in there, so that it wouldn't be a one for one.

MR. KILLAR: Then in Item 3, we took the second part of that sentence and rewrote it so it now reads does not alter an item relied on for safety listed in the integrated safety summary in a manner which would result in failure to comply with the performance requirements of 70.61. Now recognize from your earlier discussion that you were concerned about the sole item so we may have to go back and look at that to make sure we capture that concept in there.

MS. ASTWOOD: Could you read that again?

MR. KILLAR: Does not alter an item relied on for safety listed in the integrated safety analysis summary in a manner which would result in a failure to comply with the performance requirement of 70.61.

MR. SHERR: That's not a preapproval, that's a request for exemption.

MR. KILLAR: Pardon?

MR. SHERR: That's not a pre-approval, that's a request for exemption. You're saying you're going to do something that doesn't comply with the performance requirement for the regulation. That doesn't have anything to do with pre-approval.

MR. KILLAR: Okay. What our thinking was is that if it is similar to what you are talking about in Item 1 is that if you are going to exceed the performance requirements of 70.61 or you fail to

comply with 70.61, the only way you can get that approval or do that is with your approval.

MS. ASTWOOD: That is not what (1) says though. It is unmitigated accident sequence.

MR. KILLAR: Right. Recognize unmitigated but this was just looking at 70.61 without the unmitigated but also recognize that as a result of your discussion earlier you are talking about the sole items.

MS. ASTWOOD: Right, right.

MR. KILLAR: So we have to go back and look at that and see if we captured that. Now we have added Item 4 and it says does not alter any management measures described in the integrated safety analysis summary in a manner which would jeopardize the availability or reliability of an item relied on for safety listed in the integrated safety analysis summary, and then Item 4 -- 5 -- we need to change.

MS. ASTWOOD: We'll have to look at putting that in there but it comes to the question of what does jeopardize mean? What is the definition of jeopardize?

MR. KILLAR: Yes, we will have to think about that some more. Is there anything else anyone else wanted to add on those items? Other points? [No response.]

MR. KILLAR: Okay, moving over into Item E, once again we have changed a system -- or site structures, processes to equipment to change it to the items relied on for safety and management measures as described in the integrated safety analysis summary without NRC approval. Item F -- one of things we might just go back and look at what we have provided in our January 26th letter on the thing is that what we have proposed for changes is anything that exceeds or approaches to the concern listed in 70.61. Activities not currently authorized by the license, substantial degradation or a decrease in the effectiveness of any safety component in the license -- excuse me, commitment in the license, significant process of change to either create new types of higher consequence accidents or require significant changes to the facility's environmental report prepared in accordance with 10 CFR 51. Implementation of the licensee's ability -- or impairment of the licensee's ability to meet the applicable federal regulations and a conflict with any license condition. That is what we had proposed in our January 26th letter as the items which would trigger a change or a need for a change.

MR. PERSINKO: Many of those you would require preapproval whether or not a 70.72 existed or not. The other thing is some of those words I think we were clearer and less subjective in our wording than some of those words that were in there.

MR. SCHILTHELM: True. The problem with both Option 1 and Option 2 are there are "gotchas" in particular bulleted items in each of those options. For example -- does not create a new unmitigated accident sequence. Almost any change we do creates a new accident sequence if you take all the mitigation out.

MR. PERSINKO: That would exceed the performance requirements.

MR. SCHILTHELM: Without any mitigation, yes. When we are handling high enriched uranium in various configurations there are new accident sequences introduced every time we make a change. Our job is to put the proper controls in place to assure that those accident sequences can't manifest themselves so if you leave that particular bullet in there, nearly change we make becomes a license amendment so if you focus on the accident sequence and you have a different sequence you have a license amendment. That is awfully onerous and doesn't get you to those big changes that you are talking about.

MS. ASTWOOD: That obviously was not what we intended --

MR. SCHILTHELM: Understand.

MS. ASTWOOD: I mean it's --

MR. SCHILTHELM: But the devil is really in the details.

MS. ASTWOOD: It's the new types of accident sequences and we wanted to take "types" out, which is what -- the words that you had in there because you could say it is another criticality accident sequence. You know, there's only a few "types" of accident sequences -- criticality, chemical, fire, you know, so we didn't want to qualify it using types. If there is another way to qualify it to --

MR. SCHILTHELM: I'll tell you, we've struggled with this for two weeks back at our facility.

MS. ASTWOOD: I've struggled with it.

MR. SCHILTHELM: We have struggled with how to write a set of criteria for when a license amendment is in fact required and we have had an awful hard time getting somewhere that is not subjective. You have to make some subjective decisions, sometimes in consort with the regulator, and the problem with these words is they just, in reading them literally, you get to an overwhelming number of license amendments, and I'm sorry we are not offering words at this point, but it is very difficult. I agree with you.

MR. PERSINKO: We thought there was a lot of benefits here because we would get away from words like more than minimal and all that, and that is all subjective. We thought this was much less subjective.

MR. SCHILTHELM: But it really is a subjective process.

MR. PERSINKO: Well, eventually -- to some extent it will always have to be and there will always be an area where negotiations and discussions will occur. We were trying to cut them to a minimum level.

MR. SCHILTHELM: But these words didn't get there in either option, Option 1 or Option 2.

MR. WOOLLEY: -- the word unmitigated -- as Steve says -- an accident sequence slightly different --

MR. PERSINKO: Well, if that is the one item that is giving you the problem then maybe we ought to just focus on that one item and maybe you can just look closer at that one item rather than

-- MR. SCHILTHELM: Well, take the second item in Option 1 -- does not remove without equivalent replacement an item relied on for safety. What if I want to move from mass to concentration control? Perfectly allowable but it may be that I am replacing a whole family of items relied on for safety to accomplish it so clearly you don't want a license amendment every time you do that but that is a whole family of items relied on for safety.

MS. ASTWOOD: And if in your configuration and your system -- you have designed it and made the determination and documented that that is an equivalent replacement. That is not something that you would have to --

MR. SCHILTHELM: Well, we have to be concerned about that, believe it or not.

MS. ASTWOOD: In giving you the possibility that we have given you in this --

MR. PERSINKO: The idea in Number 2 was that you didn't take a -- cut back from three pumps to two pumps and say, okay, that's fine. I mean unless you can justify it -- or you take out some type of highly reliable system and sort of replace it with an administrative control. It was sort of to capture those kind of things.

MR. SCHILTHELM: But would that require a license amendment? Maybe we put too many administrative controls in place of one active system.

MS. ASTWOOD: If you can demonstrate it is equivalent --

MR. SCHILTHELM: Well, I just heard --

MR. PERSINKO: Okay, well, if you replace the --

MR. SCHILTHELM: -- a slight difference of opinion.

MR. PERSINKO: It would depend on the circumstances, of course, but if you went to one, we might talk -- we might disagree with you. If you said two or three, then we're maybe closer on that one.

MR. SCHILTHELM: But that is my point. It is very subjective and you are trying to write rules where if it is one but if it is two or three we might have to discuss. These rules aren't getting us

clarity. They are not achieving clarity -- no matter how hard we work on them, it seems.

MR. PERSINKO: And like I said, the letter I don't think got us there either.

MR. KILLAR: Yes. One of the things we threw out yesterday and we talked about it and I am not sure whether I could capture it here properly is that we made it fairly simplistic in that if you did anything that changed the category of a risk from one category to the other category -- you were a low risk and now became a middle risk or a middle risk became a high risk, then you would have to come in for a license amendment to make you guys aware that we have done that, we have increased the risk. We are still being able to show that it is safe, but we have increased the risk of that particular operation, so we need to get your approval, and so that would be a change in going from a 70.61(B) to 70.61(A) type thing.

MR. PERSINKO: Theoretically if you put the controls in there you would never move into one that -- a higher one, would you? I mean you would always be in the acceptable range or it depends whether we are talking controlled or uncontrolled.

MR. KILLAR: What we are saying is that if as a result of the changes of the process we are still going to end up with an acceptable risk. We are not going to go with anything that is not acceptable but we have now changed it from one category to the other. The other circumstance is certainly if it is something that we are not authorized to do right now. We are doing wet processing and now we would do dry processing.

MR. PERSINKO: That is a given.

MR. KILLAR: That is a given.

MR. PERSINKO: This is the compromise by not putting everything in the license. By agreeing to keep certain things out of the license we reach this compromise. Certain things we still want to have some control over.

MR. SCHILTHELM: Isn't our license still going to have a list of authorized activities?

MR. PERSINKO: Yes.

MR. SCHILTHELM: Okay. In today's environment unless we deviate from the list of authorized activities we can make changes to our facilities. I don't see that that is a broken system that needs to be fixed.

MS. TEN EYCK: But I think what it does, Steve, is it gives us a system where we have a safety basis that is constantly changing what we have now or we don't know what the safety basis is and we don't have any feel to know what the changes you make, how it changes the margin of safety and that is the whole purpose of doing ISAs so we do have a documented safety basis, and now the question is where do we draw the line or what changes you can make to change your safety basis that we feel that we don't need to be involved in and could learn about after the fact or ones

that we may need to be involved in. That is what we are trying to capture. As I say, we have been struggling with what is the exact words, how do you characterize that, but we don't want to get into a situation like we are in now that we grant your license and then when you come back for renewal some period of time later you have got a whole different -- so many changes have taken place that we have to totally recharacterize the whole system. That is our goal and the question is where do you draw that line.

MR. SHERR: In addition to that, I mean later on we get into those things in terms of when the changes have to be reported to keep the ISA summary up to date, but at some initial point NRC is concluding that, yes, the program described based on looking at specific aspects of the facility does in fact meet the intent of the regulation and so based on looking at all of the information available at that time. Now the question is under what circumstances essentially does that approval need to be updated. What kind of changes occurred to the facility that requires NRC to keep that same level of approval, so -- okay -- what are the most significant things that need to be brought to NRC's attention ahead of time before actually implementing versus those things that one can have confidence that it is not a big issue and the change can be made. It's just a matter of keeping us informed in terms of what changes have been made. That is in theory what we are trying to grapple with.

MS. TEN EYCK: I would be interested also in your comments on Option 2. We have tried to kind of mimic this after the 50.59 process and the direction that they are taking to be a more risk-informed approach. You said you preferred Option 1 but, you know, what are your thoughts on Option 2?

MR. VAUGHAN: Before we answer that, I have some observations that relate to Option 1 and 2 that might be interesting to include in the discussion. Option 1 is a very simple process. It is very basic and most people have immediately kind of signed up to Option 1 because it is on the surface so simple, but the dynamics that are in place when you have a simple process, it has very little flexibility. It doesn't take much work to go through it but it has very little flexibility. Option 2 is a complicated process but it has a whole lot more flexibility ultimately built in so if you are willing to go through the more complicated process and do that work, then you get more flexibility. It is also interesting to note that the industry comments are heaviest on Option Number 1 and least on Option Number 2. I don't know whether that tells anything or not but anyway --

MR. PERSINKO: We thought we would put something new on the table. Option 1 is something new. I mean it is a different way of thinking than trying to rehash what do we mean by more than minimal, and so we thought we would try this new direction of thinking and we are open to your comments.

MR. KILLAR: We actually thought and it might be naive in that respect is that option one was more consistent with what we are doing right now and that we have got a safety envelope that is defined. As long as we stay within that safety envelope we can make changes, modifications, what have you, but if we start to expand that safety envelope we have to come back to the Commission and indicate how we are changing it and make sure that you guys feel that is

acceptable before we actually make that change, and so I think that is part of the reason why we are more comfortable with Option 1 than we are with Option 2.

MR. LEWIS: The language in my view, I am a little less pessimistic than others that the language on D(1) is unsolvable because if we look at why we would want to review a change that creates a new, unmitigated accident sequence over the performance requirement. The reason why would be that would necessitate additional controls being identified, so now at this point our list is no longer complete, so I think there is something we can do there to change that around and say any changes that result in the need for additional items relied on for safety need to be pre-approved. So you frequently added items relied on for safety. And it's documented in the ISA that that's a new item.

MR. SHERR: Earlier we were talking about how detailed it is and finding that relied on for safety. One of these things that you had this type of thing you might -- thought that you relied on for safety in a more general way.

MR. SCHILTHEIM: Not according to what Dennis told me.

MR. VAUGHAN: Well, we've got to be careful about that, because the licensee to manage and operate his plant has to have a list of real, live items, no funny definition. The licensee has to know the items. But then we also have the space with the interconnection between the facility and the Nuclear Regulatory Commission, and we're also using this term items, and it may as we've discussed today may have a slightly different connotation in that interface. And so the licensee is kind of in a confused state, because in one case he knows he has to have items that are really items, and in another environment he's using -- dealing with items that may be something a little bit different. So --

MR. SHARKEY: I don't understand some of the mechanics of how this will work, because some of the things that we would need NRC approval for I don't think would actually be in the license, and what is it that we're seeking, a license amendment or a letter of approval?

MR. PERSINKO: Well, that's the point. I mean, the whole point is because this wasn't in the license to begin with. You agreed to that. So now we're in a different space. We relied on this to come to a safety conclusion, so we still want some element of control over it, and we want to know how it changes, too. So there's two things to know here. Preapproval of important changes, and knowledge of changes that come after. So we can keep track of what's -- at least what's changing at the plant. But you get to this point by not putting it in the license. If you want to put it in the license, we don't need a 7072.

MR. LEWIS: Anything we approve would be a license.

MR. SCHILTHEIM: I don't think we have any real disagreement here. You guys want to see big changes for license amendment. And we don't want to give you anything but big changes for a license amendment. But we're sure having a hard time defining "big." And that's really where we need to work, is how do we define that. And I know that's what you tried to do in 7072. Rob, I'm

not sure I hear big when I hear you talk about accident sequences, but there might be some level of disagreement there. But somehow we've got to come to a process by which we're going to come to a set of terminology in 7072 that's going to get us where we all want to be.

MR. PERSINKO: The feeling was with option 1 we would do that. I mean, we felt with option 2 it would apply to a broader group of things maybe that for every little change you'd be coming in, and we thought we were achieving what you just said in option number 1 by focusing it down on the number of items we hoped.

MR. VAUGHAN: I just have one other comment regarding our plant that Siemens last year and I did a count. We had 328 changes in the plant that were under our engineering change control system or configuration management system. And it is awfully hard for me to draw a line and say these are very important, these are smaller items, not of interest to the NRC. But I've relied on the facts that we weren't bogged down in the detail of listing specific item by item that existed in the plant in our license, and it was very few amendments we made last year, right, Jim? I don't know precisely how many, but certainly it was not in the neighborhood of 320. The other thing I guess maybe it's my own personal problem is I do not understand how you can change it without having new unmitigated accidents, because if you strip all the safety devices out of the system and say now analyze your system, you're going to get new accident sequences, and that's where I'm really coming up on this new unmitigated accident gives a change, provides better mitigation, but without that change can you analyze the system, you say well, you've got a new unmitigated system, accident sequence. That's what I'm having trouble with. If I -- let's say I have a requirement before I put the powder into a barrel and I currently measure back with an electronic device. I use some sort of moisture detector that's purely electronic, and I say this system has failed three times in the last month. I'm going to make a change in the plant to require before we put the powder in the barrel that we'll have a sample drawn and analyzed in the laboratory for moisture before I can transfer the powder. I have not really changed anything with regard to safety except I've implemented -- control over an unreliable -- electronic equipment. And yet if I say gee, I'm still hung up on the term unmitigated here. The new feature of the new sample requirement is a mitigation technique. What do you mean by "unmitigated"?

MS. ASTWOOD: We were not -- our intention was not to see a change like that. If you talk about mitigated accident sequences, that includes the controls that are on it. So that if you change an accident -- if you change one of those controls, you now have a different mitigated accident sequence. That's what we were trying to avoid by saying unmitigated accident sequence. You know, my thought process was the new calciner. That created a whole series of accident sequences which were not evaluated previously. Nobody knew what the controls on them would be until they were evaluated. So that's why I'm looking at an unmitigated accident sequence that created a new accident sequence that hadn't been evaluated before. Maybe we need to work on the words, but those are the types of things that we were looking at. Go ahead.

MR. COX: Tom Cox, SDSS. The key word in this number 1 option is unmitigated if you look at a single word, because no accident that's mitigated, that is, that has controls, is going to exceed the performance requirements of 70.61, because if it did, as Ted Sherr pointed out earlier, you'd be in a position of asking for an exemption from the rule. The only thing that makes any sense

here is to look at a new accident sequence without the controls. And the key thing here which I think Ray Vaughan has not mentioned as he has addressed the front part of this item 1, the key phrase now is that exceeds the performance requirements of 70.61. I don't think the staff is proposed in the last four years anything like this which was any more flexible or less restrictive than this requirement right here, because it says that it's an accident sequence due to uncontrolled -- but you only have to be concerned about it if it exceeds the performance requirements of 70.61. If it does not, and there may be many that do not, with the new design, if it does not, you do not have to bring this thing to the Commission. Item 1 is objective, flexible, it's not as restrictive as -- before. I think it's eminently reasonable and just.

MR. PERSINKO: I think it's a good point. I think the point you made, Tom, about the latter part of that, exceeding the performance requirements of 70.61, would address the previous concern. I mean, you know, it would be likely that the sequence you describe, although you introduced a new accident sequence in doing that, would likely say not exceed performance requirements.

MR. VAUGHAN: Well, see, I think the specific accident hazard -- is criticality. And that's why we were measuring the moisture. So if I don't mitigate the accident -- if I don't mitigate against a criticality, we know the result will exceed the performance criteria, because we shall not have an inadvertent criticality. That's the performance criteria.

MR. PERSINKO: Right, but the change that you wanted to introduce was a sample. As long as that sampling technique you propose doesn't exceed the performance requirements, you wouldn't have to come in for a preapproval.

MR. VAUGHAN: As long as --

MR. PERSINKO: Wait a minute. Sorry. No, no, I think I misunderstood something. I was thinking of it differently.

MR. VAUGHAN: See, what I'm saying is I've substituted a control, but you tell me before I install that new control, if you take away this old one and consider the system unmitigated, of course I'm going to exceed the performance criteria, because I will have, you know, I can have an inadvertent criticality.

MR. SHERR: No, Ray, the second criteria talks about equivalent or satisfactory or comparable replacement. It sounds to me that's the situation you're talking --

MR. VAUGHAN: There's --

MR. SHERR: So in your case you were proposing apparently it sounds like an equivalent replacement.

MR. VAUGHAN: Okay. I see the word "or" and my antenna just went -- [Laughter.]

MR. SHERR: Let's see, it's a little after 2:30. Maybe we could take a 15-minute break. Does that

sound okay? Be back here at 10 minutes to 3:00. [Recess.]

MR. SHERR: I think we've talked about option 1 of 70.72 about as much as we can at this point. I suggest that we look forward to the written suggestions along those lines and maybe they'll benefit from our discussion and that'll help. Do you have any comments on option 2?

MR. KILLAR: Yes, we have a few comments on option 2, and I think certainly as the discussion we had earlier on option 1 is going to change what we're going to write on option 1 as well. So I think it was very helpful to have a better appreciation and understanding of what you guys are coming from. On option 2, just a couple basic comments on it. We took out, anywhere you talked about integrated safety analysis, because we felt that the changes that are described will have you being in an integrated safety analysis summary. Certainly there will be change in the integrated safety analysis, but that will be at the site, and so from your perspective it would only be the information that's in the summary that would be impacted. So we took out the references to integrated safety analysis and only left in integrated safety summary. Next change we made is over in item D-1, single I. we said a change to a license condition. We took out a license application, because the license application precedes having a license, so you're not going to be able to make a change to a license application and the change process wouldn't apply to it. So we just took out the license application. Item 2, double I, we changed the discussion from malfunction to failure. We were more comfortable with failure. It may be once again a difference of opinion, of semantics, but we were more comfortable with failure rather than malfunction. The balance of the changes were just reference to the integrated safety analysis summary rather than the integrated safety analysis, and that appears just about every one of the roman numerals we've added a summary. And that's basically the changes we had in option 2. Now going on into G-1, where we talk about the notification, you had asked for a notification within 90 days of the change. What we would prefer would be an annual update to the program, and the reason why is that we felt with a 90-day change, or 90 days following the change, you're going to have a continuous flow of paper, and trying to maintain that paper and keeping up with all that paper we thought may be a real burden and actually cause confusion, so we thought maybe rather than a continuous flow based on 90 days after the change that we have an annual update instead. And we're certainly willing to discuss that. We looked at some of the things like DFSARs for the reactors. I believe they're on an annual change. And for the 50.59, I believe they're on an annual change as well. So we're trying to think also a little bit of consistency there as well.

MS. ASTWOOD: Yes, we really were looking at a shorter time period than an annual update, because we looked at this as a living document to be a current safety basis at all times for us here on the docket. The updates in the equivalent 50.59 space, it's true they do have a different time period, but they also have this change process in which many more changes would come in and the regulator, NRC, knows much more about the changes that are going on. If we go with an option 1 with fewer changes that are actually coming in, then, you know, that document could be a year old at any time and we would be looking for something that's more of a living document that's current.

MR. KILLAR: Okay.

MS. ASTWOOD: And that's consistent with things that have been submitted currently. I mean, we took these examples from the ISA summaries that have been submitted.

MR. KILLAR: Item G-3, once again we've talked about the changes to the integrated safety analysis summary and took out process safety information and integrated safety analysis or management. And then once again we suggested an annual rather than every six months, same type of philosophy, the concern that the amount of paperwork and the number of pages to be kept up with. We recommended item H be deleted. You have to remember what item H says and why we recommended it be deleted. We were concerned with the information being updated promptly. How does that compare with a 90-day or 6-month review when you talk about providing information updated promptly? It seemed like a conflict or a difference here, and maybe you can explain a little bit of the difference why this is --

MS. ASTWOOD: This is for onsite information, the 90 days and the 6 months were for updating information that you send to us. That's simply a requirement that when you make changes, the material that you have onsite for your own reference is kept up to date. That's what we were trying to get at there.

MR. KILLAR: So you're looking at the material on an onsite.

MS. ASTWOOD: Onsite. Right.

MR. KILLAR: Okay. Because see, we send our stuff to be updated before we submit things to you.

MS. ASTWOOD: Right. Exactly.

MR. KILLAR: And so we didn't think that this needed to be here. We thought maybe you were looking for something else here.

MR. LEWIS: This is the only section of the rule I know that requires the program be --

MS. TEN EYCK: Maybe where we put the term "onsite" might help clarify that. Maybe a change to the safety process information, ISA, management so and so requires -- and maintained on site or something would clarify it a little bit more.

MR. KILLAR: Right. Because we do that. We have a problem with it, and when we read this we were confused as to what you were trying to do.

MR. SHARKEY: The way I do it is by taking my change control package and amending it to the ISA or putting it in the file, and it would point out those differences perhaps between the ISA, how it's documented. So I'm not really going back to my ISA and revising tables as such, but it's in -- its retrievable and it's been reviewed properly and it's available, but I haven't been revising tables and such in all cases. So --

MR. KILLAR: I think that does meet the requirement, though, because the information is updated -- has to be updated in the actual document?

MR. LEWIS: I think to be affected onsite --

MR. KILLAR: Okay. That's all we have on 70.72 unless you have some other questions or discussion on 70.72. Okay. On 70.73, renewal of licenses, the second sentence in there is information provided, applications including integrated safety analysis summary must be current, complete, and accurate in all material aspects. We're concerned a little bit about that language, because certainly we will keep it current and it will be current when we submit it to you, but as we make changes and what have you, we'll be providing changes, and so we're concerned about the use of the language that it must be current, complete, and accurate in all material aspects. Certainly there can be some lag time and what have you between when we do changes and we submit those changes to the license renewal package. And so we're worried that we may be getting a little Catch-22 here with that terminology and curious as to what your intent was. Certainly we would provide updated pages as the existing license changes and changes occur, but we certainly didn't want to be caught in a situation where we made changes at the facility and we just haven't got the pages to you yet, and so therefore we're out of compliance because it's not current as far as the renewal application.

MS. TEN EYCK: It's my hope that we could do these renewals almost by a letter saying please renew all license per our current ISA. I mean, that's the intent of the whole thing, not that it's going to be a big onerous process like we've gone through in the past. Because the bottom line is there's no reason why these things shouldn't be up to date when we come time to renewal. MR. LEWIS: We'll look at what we have in these other sections, the 21, 22, 33, and 38, because I think we looked at that word from that section, so we'll look at it.

MR. KILLAR: Okay. That was our feeling is that those sections are already captured a lot of that, so --

MR. SHERR: I sort of think this is a -- we're not talking about renewing a license every day, infrequent event, and essentially what this is saying, when that happens, then you send your letter, questions and renewal and it refers to the ISA summary that's in place, that ISA summary that's in place is in fact up to date.

MR. KILLAR: Right. We agree that you will have the most current up-to-date copy at the time we submit the renewal application, but as the application is being processed, some things are going to change.

MR. SHERR: Well, that's different.

MS. TEN EYCK: I don't think that is -- that wasn't here we intended at all. In fact, we are hoping that the time that it takes to do renewals is significantly different than it has been in the past under this new basis.

MR. SILVERMAN: I was just going to point out that there is already a -- and accuracy requirement in Part -- apply to these folks as a condition -- because this may be -- and on the currency issue, there's other parts in the rule that tell us you have to submit changes --

MR. KILLAR: That pretty well completes the rule other than 70.74, the additional reporting requirements. We have just taken a cursory look at 70.74, the reporting requirements, and maybe some general observations, but we certainly don't have what I consider specific comments at this time. Initially, looking at it, we think the idea of just having the two time periods makes a lot more sense than having the multiple time periods like we had before. The only thing that we may want to consider or one of the things that we are suggesting, or may suggest is rather than have an one hour and an eight hour, we have a one hour and 24 hour, that we feel the eight hours sometimes causes you to do a lot of things, then you find out, gee, at the seventh hour, you really didn't -- you really don't have a bigger problem, in the meantime, everybody else has got exercised, that if you had a little bit longer time period, you can take and relieve some of that pressure. Additionally, we noticed that there are some conflicts in 77.74 in the eight hour, and in 70.50 in some of the 24 hour reporting requirements, and, so, we think that we want to make sure that those two are consistent. Other than that, I don't know if we have any other specific comments at this time period, because, like I say, we just took a cursory look at it.

MR. VAUGHN: I thought that we talked yesterday about one hour or eight hours and 24 hours, and I don't think we have any problems with the one hour -- the items that are in the one hour report, it is down in the next set. And it looks like there are several in there that would fall in probably the eight hour category and several in the 24.

MR. PERSINKO: We will just look forward to receiving your comments on that. This was put out seeking comments.

MR. SHERR: Okay. Rather than talking about the first part of our agenda, which is the rule, the next part is the standard review plan. As I indicated in the beginning, the suggestion is that we do it topic by topic, and so I guess before I do that, I guess I forgot, now the question -- this has all been discussion between NRC and NEI and the industry and the question is, are there other attendees who want to make any comment at this time? Rule aspects. [No response.]

MR. SHERR: If not, then we will proceed.

MR. GOODWIN: Ted, let me just make one comment.

MR. SHERR: You are one of the participants.

MR. GOODWIN: Whichever. On the rule itself, in the cover letter than came out, or I guess it was the cover letter with the reporting requirements just recently, the comment was made that that completed the rule as far as the proposed, you know, language and all, and prior to that we had talked about, and you had acknowledged, or your people, that the backfit provision was still under consideration. Where do we stand on that? Is it still under consideration, I guess is the question?

MR. SHERR: Well, the staff position at this time, and we haven't heard -- we haven't got any feedback to the contrary, is essentially the same as it was at the time we sent the proposed rule to the Commission. Better to hold off on a backfit provision until we have experience under the rule. And so that is -- so with this point, we don't intend to -- we have proposed the Commission backfit provision, but we would include it in the Commission paper itself as one of the areas where there is a difference, the view is in fact in the backfit provision. I think we would like to maybe better understand what the industry's proposal -- I mean the way I read the industry proposal, and maybe it is not what is intended, is the fact that any changes, even those that are necessary to satisfy the performance requirements of the rule would be subject to the backfit consideration, it applies immediately. Now, I don't know if that is what you intended or not. That would be useful clarification.

MR. KILLAR: Well, I think from a clarification standpoint, it certainly would not. That if we go through our integrated safety analysis and we identify an area that needs additional safety, we would input the safety program in order to meet the criteria, and it would not be subject to the backfit provision. What our concern is is that if there is an argument or a difference of opinion between whether that needs to be implemented or not, that then that would be potentially subject to a backfit provision. And, so, certainly what we feel would be a black or white issue, there is no question, if it needs to be done, we will do it, but if there is a gray issue, then we think we need to have something so we have some type of reason for discussion rather than forced fit type of changes.

MR. SHERR: Let me understand. What you describe doesn't strike me as a backfit question. You know, in other words, if the situation were a licensee proposing that particular items relied on for safety to cover an accident sequence and it is judged to make that highly unlikely. The staff's review of it is, well, they don't really, looking at the analysis provided in our listing, they don't think the conclusion that it is highly unlikely is valid. They think it is sufficient for that purpose. That is different than a situation where staff is saying, well, we know what you have makes it highly unlikely, but we still think you need to do more, which I think is more of the backfit situation. So I am still not sure what --

MR. KILLAR: Well, I think that is exactly the situation we are concerned about and that the licensee will propose a system which makes it highly unlikely, however, the reviewer says, well, gee, your system relies on administrative controls and these things which we feel are weak and, so, therefore, we want engineer controls and it is going to cost you more, and so we feel -- but that is, you know, an obligation of the licensee to make those changes to meet that. So we think as long as we can demonstrate the system provides the adequate level of safety, that there shouldn't be a question, and we don't want to be in the position where we are forced to make changes because of a difference of opinion of that level of safety. I think, you know, it is the black and white areas that aren't going to be a problem, it is the gray areas that is going to be the issues.

MR. SHERR: Did you want to say something, Don?

MR. WOOLLEY: Well, there has been -- I think we need to be careful when we talk about the

backfit rule. The backfit rule doesn't necessarily mean cost benefit analysis -- the applicant proposes an item relied on for safety, you review that and you conclude it is not sufficient to meet the performance criteria, that is, in essence, to provide a reasonable level of protection to public health and safety, and you find the backfit rule -- would apply, but it would not require you to do a cost benefit analysis. It can simply require you to undertake an evaluation, some documentation to explain why it is that your proposed approach is necessary -- threshold of safety. On the other hand, if you conclude that it is an enhancement, that you agree with the licensee that the change they make would make the event unlikely, that you would like them to do more, you are now talking about safety enhancement specs, and that is where the backfit rule would require staff to perform a cost benefit analysis. So when we say the backfit rule would apply, we are really talking about two different things, and I believe that is the way the backfit rule is constructed and the way in which we had proposed in the past --

MR. GOODWIN: I think the other concern that we have would be getting away from the, you know, the unique applications we are giving licensees, but would be the imposition of new generic requirements for the entire industry, or group of licensees.

MS. TEN EYCK: Well, as Ted explained, our position at this time is the similar position that we had before, is that we don't feel that we should have a backfit provision until we have a documented safety basis in place through the ISA to make the comparisons. And so that is going to be our proposal, you know, at this point, and that we will certainly identify, in the paper going up, that industry feels different, and to characterize your position just as we did in the last commission that went forward that described the differences in our positions on this topic.

MR. SHERR: The SRP.

MR. PERSINKO: Yeah, Gary is going to take care of the group viewgraphs.

AUDIENCE PARTICIPANT: How the organization is proceeding --

MR. SHERR: Yeah, we are actually going to -- I was going to address that in the closing remarks tomorrow.

MR. PERSINKO: Okay. I will get on to the standard review plan. Before we get into each of the individual issues, I would like to make a few overall comments applying to the entire SRP. We intend to use significant cross-referencing when possible, that was a comment someone had made, and we intend to do that. We also intend to list definitions up front that are global definitions. If they are specific definitions that are used specifically in a chapter, we will put them in the chapter. But we will have an overall definition list upfront. We also intend to eliminate any inference that the SRP contains requirements. We intend to make it perfectly clear that it is a guidance document. There were a lot of concerns that it is really not a doing document, so we are just going to upfront try to make that explicitly clear. Okay. I guess we will move on to the first one. We are going to go through this in the same order that the NEI 11/25 letter was submitted. And in that letter, quality assurance was number one.

MR. KILLAR: Just a general, two quick things before we go through this on a general discussion. On the definitions, we certainly agree that we would like to have them in one package. One concern we have is that if you do have -- come up with some unique definitions, you make sure that they are so well identified that -- similar to what we talked about earlier, I can't even remember which one we talked about, I guess it was -- maybe one of those, something like that, that maybe it is unique in this section, but that same definition is used in another section, fire safety versus criticality safety, what-have-you and so, we need to make sure that those are identified, that they are truly unique to the section. The other thing that we noticed in going through the standard review plans is that there does seem to be necessarily the same, how do you say, tone, philosophy SRP section to SRP section, and that if you would have maybe a final editor, technical reviewer or whatever you want to call it, look for consistency as far as tone through it, it will make it a lot easier because you read one in one section and you get this inflection or this idea, and then you read something similar in another section, and you go from a different direction. So, look for something along that line. So, just general comments.

MR. PERSINKO: On the subject of quality assurance, the Nuclear Energy Institute, in their letter, basically had concerns about, they felt that use of NQA 1 was being mandated and that QA for design and construction was being mandated, and it was also stated in the letter that QA should be appropriate to the level of risk. First, the staff does agree that QA should be appropriate to the level of risk, there is no problem there. QA SRP was intended to be guidance and we will put words in there to better reflect that if it wasn't clear the first time. As far as NQA 1 goes, what we intend to do, I mean the goal is to come up with an acceptable quality assurance program applied to the items we add on for safety. What we intend to do is to use NQA 1 as -- list sources of references that may be used in coming up with such a program. NQA 1 will be one of those documents. We intend to also list in there other documents such as ISO-9000 and Department of Energy non-reactor guidance that is out there. So, in that way we tried -- we think it will be clearer that we are not mandating the use of NQA 1. As far as design and construction QA, we felt that for new processes, design and construction, QA is a necessary element. That is how we intend to handle quality assurance. Any questions? Now we are going to change it over, I guess.

MR. SHARKEY: Just the things that you listed, though, NQA 1, ISO-9000, the DOE non-reactor guidance, they are probably all equivalent in their level of detail. I understand that they are guidance, but they are all essentially the same thing, I think.

MR. PERSINKO: But the concern was that NQA 1 was for reactors and it wasn't meant for you. I believe the chemical industry uses ISO-9000. So we are just trying to show that there is more than one way to come up with a good program. The ultimate goal is a good program. What do you use now, for safety QA?

MR. SHARKEY: It is kind of a combination of pick from here and there, I mean there are some good practices that you follow. The same thing is listed in NQA 1 and ISO-9000, a lot of the same concepts.

MR. PERSINKO: It is the same concept, right, coming up a with good quality assurance

program.

MR. SHARKEY: We run our fuel manufacturing in accordance with NQA 1 and it is a very rigorous process, there is no deviation. There's 18 criteria and people follow every step of the way. There is no exceptions some pretty tight rigor.

MR. PERSINKO: And that may be true if you have an item relied on for safety that is a sole item relied on for safety, whose consequences are very high. You may want to apply NQA 1 to that it item.

MR. SHARKEY: Perhaps

MR. LEWIS: Keep in mind that the performance requirements are relatively high risk events and that may be the level that is appropriate if it truly is an item that -- whose failure would cause one of those events.

MR. PERSINKO: So, anyway, the thought was, though, the concern that was expressed was that NQA 1 was being mandated. Well, we intend to change it in this fashion.

MR. VAUGHN: Regarding design and construction, I am not quite sure, you start out by saying NQA 1 and ISO-9000 and so forth are just, these are guidance documents, then you say, by the way, we are going to tell you what -- design and construction. All of our plans -- commercial -- industry standards -- the structural strength -- so forth, -- can find in a reactor plant. I still -- concerns -- I mean if -- nuts and bolts in a system, do I have to have -- nuts and bolts for holding a stairway up.

MR. PERSINKO: Well, once again, I mean if it is a forward fit design and construction, you would put the appropriate QA to it, the QA to it that is appropriate for its level of risk.

MR. VAUGHN: All right. What I am saying is facilities are built for industry standards, not Part 50 QA requirements or NQA 1 requirements. If I am building a new chemical factory out here, I don't necessarily --

MR. PERSINKO: Well, I am not trying to say that, but I would believe that you might apply another type of QA like ISO-9000 perhaps. But there would be some QA measures, a standard that you would apply.

MR. VAUGHN: But the standards that exist in construction, it is --

MR. PERSINKO: Yes.

MR. VAUGHN: And it is -- current industry standard. If we are building a new plant, we would build to the newest -- standard.

MR. PERSINKO: Newest QA standard.