UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON
RISK-INFORMING SPECIAL TREATMENT REQUIREMENTS

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FRIDAY, JULY 20, 2001

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ROCKVILLE, MARYLAND

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The briefing was held at the Nuclear Regulatory Commission, One White Flint North, Room 1F16, 11555 Rockville Pike, Rockville, Maryland, at 1:00 p.m., Richard A. Meserve, Chairman, presiding.
PRESENT:
RICHARD A. MESERVE, Chairman
GRETA JOY DICUS, Commissioner
EDWARD McGAFFIGAN, JR., Commissioner
JEFFREY S. MERRIFIELD, Commissioner

P R O C E E D I N G S

12:59 p.m.

CHAIRMAN MESERVE: Good morning. This morning is the first of our annual briefings on various of the NRC's arena activities, and this briefing today will focus on our international activities.

As part of that rule making plan, the staff began the rule of the South Texas Project's risk-informed exemption request with regard to its exemptions for its special treatment requirements and we'll be hearing about the staff's efforts on both of these efforts, both of these activities this afternoon and then we'll have a briefing from some stakeholders as well.

Dr. Travers, would you like to proceed?

DR. TRAVERS: Thank you, Chairman. We are here, as you've indicated, to discuss with the Commission the completion, actually, of our review for the exemptions from certain special treatment requirements of our regulations that have been requested by the South Texas Project Nuclear Operating Company and on the status, as you indicated, of our efforts for risk-informing 10 CFR Part 50, also known as Option 2.

As you know, the exemption effort has been a unique undertaking and I would like to acknowledge the required close coordination that has occurred between the staff and South Texas through many public meetings that were conducted since July of 1999 to successfully arrive at the point we're at today and we're going to brief you on that.

With me at the table today, I won't read all the titles, but from the Office of Nuclear Reactor Regulation are John Nakoski who is going to begin our briefing in just a moment or do most of the presentation related to the South Texas Project exemptions; David Matthews; Brian Sheron; to my right is Jack Strosnider; Gary Holahan and from the Office of Nuclear Regulatory Research, Mark Cunningham.

As I mentioned, John's going to talk about South Texas and following that, Dave Matthews will be discussing the status of RIP 50 Option 2 and with that very brief introduction, I'll turn it over to Brian for an intro.

DR. SHERON: Good afternoon. As Bill said, we're here to inform you of our decision to grant the exemptions to South Texas on this special treatment regulations. Also provide you with a status of Option 2 in risk-informing our regulations. And also to inform you that this meeting and our safety evaluation, in fact, satisfies the need to consult with the Commission to rely solely on special circumstances we are using to determine to grant the exemptions.

Our review of South Texas exemptions was a challenge for the staff. This was new territory in many respects, moving into very risk-informed area. We expended about 14,000 staff hours during the review. We had extensive support both from the Office of General Counsel and the Office of Research, extensive interactions with South Texas in terms of meetings and exchange of information. We had several meetings with the Advisory Committee on Reactor Safeguards and as a result, we are granting, essentially all the exemptions that were requested and are discussed in our safety evaluation.

The categorization process that we have come to agree upon will allow South Texas to determine the scope of the components that will be included in the exemptions and they will be able -- I'm sorry, South Texas actually will determine how to ensure the exempted components remain capable of performing their safety function. That's an important point in terms of the functionality requirement.

This is a first of a kind effort and we are going to -- this doesn't stop right now. We are going to continue to work with South Texas as they implement the exemptions to gain experience and as I said, this is a very significant step in our efforts to risk-inform our regulations in the regulatory processes.

The approach we're going to use now as approved by the Commission previously is to use the insights gained from South Texas during our efforts to risk-inform the special treatment requirements in our regulations under the Option 2 rule making and Dave will talk more about that.

At this time, I'm going to turn the presentation over the John Nakoski who will discuss the staff review efforts.

John.

MR. NAKOSKI: Thank you, Brian. Good afternoon, Chairman, Commissioners. I appreciate the opportunity to discuss with you our review of the South Texas request.

As background, I'd like to go over briefly the South Texas exemption request. If I could start on Slide 3?

(Slide change.)

MR. NAKOSKI: As we discussed in the June 12th Commission paper, exemptions include a broad cross section of special treatment for 10 CFR Parts 21, 50 and 100. Key to the South Texas request is the categorization process.

Thank you. This process is used to identify the scope of components for which our special treatment requirements may be relaxed, those components to be low safety significant or nonrisk significant. Essentially, those safety-related components do not contribute significantly to plant risk.

In place of our regulations, South Texas proposes an alternative treatment program. This program was developed using commercial and industrial practices used at South Texas. The purpose of this program is to provide reasonable confidence that the exempted components remain capable of performing their safety functions.

If I could have Slide 4?

(Slide change.)

MR. NAKOSKI: As shown on this slide, we focused our review in three areas: the final safety analysis report, the categorization process and the alternative treatment process. Our review of the FSAR was driven by the need to establish a licensing basis for the exemptions. This was challenging in the case of South Texas because we faced the unique circumstance that the exemptions were requested based on the processes that South Texas will implement over the life of the plant.

To address this challenge, we determined that descriptions of the categorization and treatment processes in the South Texas final safety analysis report is the most appropriate method for establishing the licensing basis.

In reviewing categorization, we were guided by the principles of Regulatory Guide 1.174 on the use of probabilistic risk assessment and risk-informed decision making. Also, our review used insights we gained from our approval of a greater quality assurance at South Texas and we considered the work done under Option 2 on the proposed requirements for robust categorization process, proposed Appendix T.

Using this framework, we reviewed the South Texas request to assess how PRA and expert panel insights are used by South Texas in determining the risk significance of components. Further, we independently reviewed the categorization of a selected sample of components.

For treatment, we needed to have confidence that the exempted components would remain capable of performing their safety functions, basically, can the alternative treatment demonstrate functionality of low-risk components. We started our review using our traditional approach, an approach that focuses on how treatment is implement. As our review progressed, we recognized that the level of effort required using our traditional approach was inconsistent with the risk significance of the components to be exempted. This led us to clarify the criteria we needed to satisfy on functionality to support the exemptions. We determined that the alternative treatment program must include the necessary elements and objectives that will result in low-risk, safety-related components remaining capable of performing their safety functions under design basis conditions. Our focus shifted from how South Texas would implement alternative treatment to what are the elements and expected outcomes or objectives of an acceptable alternative treatment program for low-risk, safety-related components.

To move forward with our review, we defined our locations regarding the necessary elements and objectives of an acceptable alternative treatment program.

If I could have Slide 5?

(Slide change.)

MR. NAKOSKI: The results of our review are highlighted in the next two slides, Slides 5 and 6. As I mentioned earlier, we determined that the process descriptions in the FSAR provided the best method for establishing the exemptions licensing bases. South Texas provided a detailed FSAR description on how the categorization process will be implemented. We found that the level of detail provided was consistent with the key role categorization played in the exemptions. The proposed FSAR description on the alternative treatment program focused on the high level elements and objectives of the program. We found the level of detail provided in this description was consistent with our expectations regarding elements and objectives. Based on these findings, we concluded that the proposed FSAR section was adequate to support the exemptions.

As noted on Slide 5, we concluded that the categorization process is acceptable. This conclusion is based on our findings that (1) the South Texas PRA is sufficient to support the categorization process and exemptions; (2) the process appropriately applies insights from the South Texas PRA and an expert panel; and (3) appropriate sensitivity studies were performed by South Texas as part of the categorization process to provide confidence that change and risk are small.

If I could have Slide 6?

(Slide change.)

MR. NAKOSKI: In our review of the alternative treatment program proposed by South Texas, we focused on the elements and objectives of the program. We found that the program included the elements and objectives necessary to provide reasonable confidence that the exempted components would remain functional. Included in the South Texas alternative treatment program are elements that address design control and corrective action programs. These two elements are parts of the program that continue to meet the criteria of 10 CFR 50 Appendix B. Also included in the program are elements and objectives that address procurement, installation, maintenance, inspection tests and surveillance, configuration control and oversight. We concluded that the South

Texas' alternative treatment program includes the necessary elements and objectives that if effectively implemented will result in low-risk, safety-related components remaining capable of performing safety functions under design basis conditions.

If I could have Slide 7?

(Slide change.)

MR. NAKOSKI: One of the requirements for granting exemptions is that we find there's no undue risk to public health and safety. The categorization process is adequate to identify low-risk components that may be exempted from our special treatment requirements. Further, sensitivity studies provide insights on changes and risks that may occur as treatment is changed. These changes are small. Finally, the alternative treatment program, if reasonably implemented, provides reasonable confidence that exempted components will remain functional. Therefore, we found that relaxing the special treatment requirements consistent with South Texas' proposal for low-risk, safety-related components poses no undue risk to public health and safety.

If I could have Slide 8?

(Slide change.)

MR. NAKOSKI: In addition to finding there's no undue risk to public health and safety, we must find that special circumstances are present. For all but the exemption requested to 10 CFR 50.59, we determined that the categorization process is a new material circumstance not considered when the rules were adopted. For 50.59, we determined that the underlying purpose of the rule is satisfied, so we didn't need to apply this special circumstance.

The categorization process is a balanced approach that applies risk insights from a significantly more robust PRA than when the rules were adopted and it also applies insights from an expert panel.

To satisfy the special circumstance provision, we must find that it is also in the public interest to grant the exemptions. As I mentioned before, we found that the exemptions don't pose an undue risk to public health and safety. With this in mind, we concluded that we could reduce unnecessary regulatory burden in this case, without compromising safety. Also, implementation of the processes supporting the exemption enhances the effectiveness and efficiency of our oversight by helping to focus our resources on risk-significant components, likewise South Texas' resources can be focused.

Also, the exemption philosophically aligns South Texas licensing basis with the Reactor Oversight Process in the application of risk insights. Based on these considerations, we concluded that it is in the public interest to grant the exemptions.

The final condition to satisfy and relying solely on the application of the special circumstances to consult with the Commission, the Commission paper provided on June 12th in this meeting satisfies that condition.

We have met with ACRS on a number of occasions, on four occasions during our review and ACRS is in the final steps of providing its comments on this effort.

If I could have Slide 10, please?

(Slide change.)

MR. NAKOSKI: Our plans following this meeting are to first address the comments South Texas provided on the preliminary safety evaluation. We requested that South Texas provide comments on factual errors and omissions. South Texas provided us with its comments on July 3rd. There are no significant changes needed to the safety evaluation as a result of these comments.

Probably the most significant change that would occur relates to clarifying the condition on the exemptions related to the licensing basis for the exemptions and we clarified that condition to indicate that the FSAR, the description of the categorization and treatment processes in the FSAR is the licensing basis for the exemptions.

After we update the safety evaluation, we are on schedule to issue the exemptions by August 3rd, about two weeks from this meeting. We have discussed the impact of the exemptions with Region IV and plan additional interactions on the impact, on the inspection program with their inspection staff. But we concluded that the exemptions do not require a fundamental change in the Reactor Oversight Process.

In closing, we recognize that as a first of a kind effort, we continue working with South Texas as exemptions are implemented.

At this point, I'd like to turn it over to Dave.

MR. MATTHEWS: Good afternoon. May I please have, I think it's Slide 11?

(Slide change.)

MR. MATTHEWS: Currently, the staff is working to translate the insights we've gained from South Texas and its associated review of this exemption into the Option 2 rule making effort. First of all, what did we learn?

The South Texas exemption review was a proof of concept, as we phrased it, in several forums, that was key to the staff developing a good understanding of how risk-informed categorization and adjustments in treatment can be performed at the engineering level. This review confirmed that a robust categorization process is the foundation to this Option 2 approach.

Our focus now is to structure these processes into the regulatory framework through rule making. In particular, we need to determine what requirements should be in the rule itself, what information appropriately belongs in guidance documents such as Reg. Guides, potentially endorsing industry agreed-upon implementing documents, and finally, which portions of these processes and the details belong in plant-specific implementing procedures.

Further, we will also be resolving other issues where industry's proposed Option 2 approach, as expressed in the NEI guidance document that we're reviewing closely, NEI 00-04, differs from what the staff approved for the South Texas exemption. The staff needs to address these differences and decide what will be the approach for the proposed rule. As an example, the descriptions of the RISC-3 treatment processes in NEI 00-04, do not contain all of the high level elements and objectives that the staff found necessary for South Texas to describe in their FSAR. The staff is currently working on all the tasks shown on the previous slide in parallel. We're trying to expedite the rule making schedule while still recognizing that there are insights to be gained from pilot activities that we want to take into account.

First, the staff is developing the rule language to be contained

in Section 50.69 which we had numbered previously in our ANPR and if it is still needed, in the Appendix D that was also included in the ANPR. At present, the staff is reviewing a first draft of rule language for completeness and adequacy before circulating that draft for broader, internal review. The staff intends to use this draft to help formulate its positions and feedback about the sufficiency of the proposed NEI guidance document that is intended to support implementation.

NEI has been supportive of the Option 2 effort by developing this draft implementing guidance in the form of NEI 00-04 as I previously mentioned. The staff is developing a third and hopefully final round of comments on this document which is now up to draft revision B. Several public meetings have been held to discuss this guidance as well as to discuss pilot activities that have been undertaken and our underway.

In addition, the BWR, Westinghouse and CE Owners Groups are supporting Option 2 through funded pilot efforts. The staff will be observing Quad Cities, Integrated Decision-making Panel, IDP, in August, as will NEI and other participating pilot plans. The pilot effort focuses primarily on categorization and we're assessing, along with the industry the best means on how to pilot treatment proposals which represent a different challenge from piloting categorization.

May I have the next slide, No. 12, please?

(Slide change.)

MR. MATTHEWS: Now that the South Texas exemption review is essentially complete, what does the staff see as its primary challenges for completion of the Option 2 rule making?

First, this will be a challenging rule making. It will involve a large number of regulations, namely the special treatment requirements that are spread throughout Part 50, Part 21, Part 100, etcetera, for which the proposed 50.69 provides an alternative.

Our experience to date is that that drawing a clean interface between 50.69 and the special treatment requirements which again reside at the present time our list includes Part 21, 50, 52, 54 and 100, is a difficult task. Our goal is specifying how to reduce the treatment requirements that provide confidence of design basis functions while at the same time maintaining design function for RISC-3 structure systems and components. The rule wording is also very difficult. Writing the rule in a clear and understandable way such that compliance can be determined and so that NRC review of a 50.69 submittal is minimized or possibly eliminated is the challenge. Another issue is the minimal level of PRA quality that's necessary to support an Option 2 categorization process. Our review of the South Texas exemption did not determine this minimum level because the South Texas PRA had been reviewed formally by the staff and was generally accepted as one of the better PRAs in the industry. Therefore, it was found to be sufficient to support the exemption requests. Now the question remaining is what is the minimum needed to support Option 2?

NRC review of the industry peer review process document, NEI 00-02 and how it will mesh in NEI 00-04 is thus another key task for the Option 2 effort.

Finally, the Option 2 regulation and supporting guidance must accommodate and I can't stress this enough, all of the present licensing basis that exists throughout the industry, all of the designs, the current or new licenses and renewed licenses that may exist at the time that Option 2 is made available as a voluntary initiative.

Next slide, please?

(Slide change.)

MR. MATTHEWS: This brings me to the subject of schedule and milestones. As already noted, in the near term, we're working on several tasks in parallel as reflected on this slide. In the next phase which we refer to as just medium term, we want to agree upon the rule language, get feedback from the pilots to support guidance development, as well as to gather data needed for the regulatory analysis and prepare the necessary documentation to support a proposed rule making activity.

The longer term tasks are estimated to begin about six months from now. At that time, we will need to freeze the pilot feedback, the rule language, the draft Reg. Guide and NEI 00-04, so that we can finalize the rule package, including the regulatory analysis and the statement of considerations for the supporting Federal Register notice and prepare the SECY paper to bring forth a proposed rule to the Commission in April of 2002.

Now I'd like to turn it back over to Dr. Travers.

DR. TRAVERS: Well, with that, I think we'll simply close the staff's presentation, Mr. Chairman. Thank you.

CHAIRMAN MESERVE: Thank you very much for the helpful presentation.

Commissioner Merrifield?

COMMISSIONER MERRIFIELD: Thank you very much. The first question I have goes to Slide 11. You talked about Option 2 status and some of the activities that are going on. Obviously, it's a push-pull here. You've got a pilot program that is getting worked on. There's indications at least from Mr. Pietrangelo's statement later on that program is going to take 6 to 12 months, yet, we're going to be engaged in a rule making process and I'm wondering the extent to which the lessons that we will be learning from that pilot may or may not be able to be incorporated within the rule making that we're undertaking and how that all comes together?

MR. MATTHEWS: Well, I will take a staff at describing what is essentially a challenge, but at the same time a parallel process involving staff members who will be observing, participating in the pilot and at the same time being responsible for refining the language, introducing the lessons learned from those pilots and working in public meetings with NEI to address the guidance.

And the expectation is that the early pilot efforts will be utilized by both NEI as a collecting or collating activity and the staff to hopefully confirm the progress made to date in the direction we're going, all right, recognizing that we are going into a proposed rule stage and that we'd like to bring the pilot information to bear as much as we can before we freeze the proposed rule as it goes to the Commission, but given that those activities are going to be going on, they will also inform comment on the proposed rule by the industry. So I think we see two steps or two bites out of the apple. Get

what we can out of the existing early pilot activities, feed it into the rule development and guidance development activities, freeze that process even though the pilots may still be going on and get the Commission a proposed rule for you to deliberate on and hopefully, promptly, release for publication and further public comment and then we will deal with the deltas that exist between the proposed rule stage and the final rule stage.

COMMISSIONER MERRIFIELD: Well, it would seem to me that early communication with the public and other stakeholders is key to this process and I just want to push a little bit more on the extent to which you are communicating relative to the proposed rule language. How do we maintain a dialogue, you talk about sort of freezing people out. How do we grapple with that, so that we've got the best product coming out, yet meet our obligations?

MR. MATTHEWS: I think we can, but it is a challenge by virtue of some of our restrictions on sharing actual rule language in advance of a proposed rule coming to the Commission that constitutes a predecisional document. But we've become pretty effective at dealing with the beliefs and concepts and principles articulated in public meetings that NEI can infer from those principles what the focus of our intended expectations are when we get to actual rule language.

So we have been successful in that, but it's certainly facilitated by being able to share the actual language and we've had some history in prior rule making activities of sharing that language when the Commission has given us that imprimatur or that permission.

COMMISSIONER MERRIFIELD: Where were we using that previously?

MR. MATTHEWS: I'm not personally familiar with too many of them, but I am aware that NMSS in the materials rule making activity --

COMMISSIONER McGAFFIGAN: Part 35, Part 78, we did that --

MS. CYR: And of course, the industry does have the opportunity once you enter a proposed rule to give you all the comments that they have the opportunity to do.

COMMISSIONER McGAFFIGAN: But there is some advantage, I think, as Commissioner Merrifield is indicating to have an open process prior to the proposed rule --

MS. CYR: The concept of freezing out is a little bit of a strong comment because, in fact, you do have a formal legal process by which they can make comments on -- all members of the public can make comments on.

COMMISSIONER MERRIFIELD: No, I infer from that comment there's a point at which you have to set down the action in the paper.

MS. CYR: Right, exactly, that's their responsibility and obligation to do.

COMMISSIONER MERRIFIELD: But there are a variety of ways in which we engage in that responsibility here at the Agency previously. That was part of what I wanted to bring out.

The final issue I want to bring up is there are some comments in Mr. Pietrangelo's materials associated with the need for Appendix T and I'm wondering if the staff has any response to that and to get your sense of if we do not proceed with Appendix T, what resource implications are there associated with the prior staff reviews and efforts that were previously undertaken?

MR. MATTHEWS: Well, I think Gary can handle that. By way of introduction, I don't think the staff has committed to an Appendix T at this point in time. There are considerations with regard to the need for that level of prescriptiveness, but it does depend on what we see in industry-related activities regarding PRA quality. So with that, I'll let Gary address it.

MR. HOLAHAN: I agree with Dave's comments. The original concept of having Appendix T was an attempt to devise a rule for which no staff review and approval would be necessary. The idea behind that is to make it as efficient and as rapid as possible at the implementation stage.

By its very nature that sort of rule would have to prescribe fairly clearly how the rule would be implemented since there would be no stage at which the staff would say yes, that's what we had in mind and that's good enough. But we wanted to preserve that concept. So what we've been conceptually dealing with is the possibility of having a rule with two alternatives. One is that an applicant could submit for review and approval their idea about how the PRA categorization would be done or they could follow a relatively tightly prescribed approach called Appendix T for which we have confidence that no matter who does it or how it's done or what plant it's applied to, it would always produce acceptable results.

So by its nature that would minimize the review or eliminate the review effort, but it would probably be somewhat conservative and if a licensee wanted more flexibility in how to do it or a greater extent of use, they would probably have to come to staff for review and approval.

Ultimately, the rule might not have an appendix to it. We really don't know the practicality of it, but we've been keeping it as a possibility because we want to play out this possibility of having a minimal or zero review option.

COMMISSIONER MERRIFIELD: The fine line we tread between predictability and being responsive --

MR. HOLAHAN: In this case, it's even possible to have both options perhaps.

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Thank you. First, a procedural question. You've indicated that your intention is to issue the exemptions in early August, but you don't yet have -- you anticipate ACR comments which you don't yet have. I mean do you have a good idea what's coming and are you building in an opportunity to respond to the ACRS before you issue the exemptions or what's your intentions?

MR. NAKOSKI: We do have a sense. Like I said, we had, like I said, four meetings with ACRS on this. The indications based on that meeting is that they support staff moving forward with the granting of the exemptions and our expectation is there won't be any comments that would potentially impact our decision to grant the exemption.

DR. TRAVERS: But currently, we expect to have those in hand before.

MR. NAKOSKI: Yes, that's correct.

CHAIRMAN MESERVE: And you'll evaluate them before you issue the exemptions?

MR. NAKOSKI: Yes.

CHAIRMAN MESERVE: Right answer.
(Laughter.)
CHAIRMAN MESERVE: I was struck in reading through the safety evaluation that's attached to the SECY paper that, in fact, most of the equipment that the South Texas plant is going to be categorized into their variant of RISC-3 is the low-risk, nonsafety significance, low risk significance, the terminology, that, in fact, that's not done through PRAs and almost all of that is as a consequence of expert evaluation. There's this waiting scheme as described there.

And I would guess that that has to do with limitations of PRAs in terms of the number of components that are included in them typically, so we anticipate that's going to be, have to be part of whatever process was in the categorization process for the rule, too.

What thoughts have you given about the auditability and reproducibility of those kinds of evaluations? It doesn't have a PRA basis. It appears for a lot of the equipment that are going to be the benefit from this. So you're relying on judgment and how do you demonstrate that that is a rigorous scrutable process?

MR. HOLAHAN: I think the staff recognized that and one of the things that South Texas has done to bring some regular predictability to the process is to come up with a specific list of questions that have to be answered. So although it involves judgment, it's a judgment focused on specific issues and specific questions and then they have an actual numerical scheme by which they convert the answers to those questions into a rating score to help in the categorization process.

I think the other experience that we have that seems to say that this is a viable approach is that basically all licensees and their implementation of the maintenance rule have a similar approach in combining PRA insights with what the maintenance rule usually calls an expert panel in determining how to deal with issues in maintenance rule.

And those activities have been inspected by the staff and in general, we found that it was a viable process. Obviously, this is in a little bit different context, but if anything, it seems to be a more structured and more predictable process.

And the fact that it's documented in the FSAR sort of makes it clear to the staff, to the licensee and the public how that process is going to be played out.

CHAIRMAN MESERVE: This does touch on another issue that you've raised that you're basically approving a process for categorization and for treatment and Brian in describing what was going to happen is that -- said that SDP will determine the preservation of functionality as being the treatment process, which obviously, I mean there's a lot of reliance on the licensee and that, no doubt, is appropriate, but does raise the question about our capacity to inspect and I mean that in a sense that are there special skills that are going to be required, special training of inspectors? Is that envisioned, is that part of the ROP for the plant? How are you going to handle that?

DR. SHERON: Right now, we haven't envisioned that this is going to require any special training or anything. By its very nature the RFP process is a risk-informed process which means that, in theory, it would focus on those very components that do require, I should say are safety significant and the like.

The whole process obviously is that the components that were in Category 3 are the ones that are not risk-significant an therefore --

CHAIRMAN MESERVE: But you've got to assume that the categorization is correct?

DR. SHERON: Yes.

CHAIRMAN MESERVE: So at some point you need to have confidence in that?

DR. SHERON: Yes. And we are -- we have started an effort to work with the region in terms of what kind of an inspection program, if anything, whether there needs to be any enhancements to it. I don't know if John, you want to add -- you've had some discussions.

MR. NAKOSKI: Right. The Region has been cut in on this review for a while. They've had the opportunity to look at the draft safety evaluation we issued in November. We sent the preliminary safety evaluation to them to solicit their insights on the impact to the implementation of the inspection program. I think pretty much universally we agree there's really no need to change the reactor oversight process. It really gets down to implementation. And we do have some initiatives underway to meet with regional management in the near term shortly after the exemptions are issued to go over with them kind of the philosophy that the program office has and some of the history that we went through in reaching the point in the exemptions or reaching the point to be able to grant the exemptions. In addition, we plan to go to the regional counterpart meetings for the regional based inspectors which is in October time frame and with the resident inspectors in the November time frame, to provide them with some insights and to answer their questions because I think a lot of the questions they may have are similar to a lot of the questions that we struggled with in getting to this point and being able to grant the exemptions and we can share that with them. And from that they should be in a better position to go to the site and understand how the process works.

CHAIRMAN MESERVE: Good. Commissioner Dicus?

COMMISSIONER DICUS: Okay, thank you. You mentioned so far you've spent 14,000 hours on this?

DR. SHERON: Yes. That's an approximate number.

COMMISSIONER DICUS: Okay, that's close enough. But that's a lot. I'm assuming that and I need some education here, that the rule making that will proceed from what we've been doing will be at least, in part, designed, if we get the next exemption request to cut down on that number of hours. Is this where we're trying to head with this?

You mentioned, I think, Mr. Matthews, it's a proven concept in what we're doing. I like that. That terminology is good.

MR. MATTHEWS: Yes. Right now, in spite of discussions that have been held in the past and Commission papers and your agreement with the staff's approach that envisions the possibility of additional exemptions as part of the pilot process, we don't anticipate that the pilot process that we've undertaken with several volunteers with NEI involvement is going to necessitate exemptions being granted. So at the present time, we don't have another quote exemption

process on the horizon. Not that if there were delays in this rule making and there was obviously a given licensee determined that it would be to his benefit to proceed down the road of an exemption in advance of Option 2 being finalized for his use on a voluntary basis that we might not receive another one, but right now we wouldn't expect to see another exemption. And as to if we did see one what the resource implications of that exemption were, I can't anticipate given that while this was a first of a kind and a proof of concept and it was a challenge for the staff, if another exemption came in, it's likely that it would be sufficiently different from the South Texas circumstance that it may not represent an overall savings just because we've gone through South Texas. I would hope it would, but it may present some unique challenges in that regard.

COMMISSIONER DICUS: Okay, well let me follow up on that because I think your slide 8, I can't remember which slide. Here it is. It's slide 12, you mentioned that addressing the issue of PRA quality and then you say you didn't really determine what would be the minimum support for an exemption regarding what the minimum PRA would be for an exemption given the fact we know we have a potpourri of PRAs out there.

MR. MATTHEWS: I don't think I said for an exemption. The minimum PRA necessary to support a plant who would choose Option 2.

COMMISSIONER DICUS: Okay, all right. But that might change this. That could deal with the issue of number of hours or something.

MR. MATTHEWS: It could.

COMMISSIONER DICUS: What if they got a request for Option 2 with a plant that has a questionable --

MR. MATTHEWS: That, I think, Gary alluded to that in his response to Commissioner Merrifield's question, is that if we got an Option 2 in place, we would hope to have requirements regarding PRA quality or at least guidance and agreement with that guidance sufficient to still allow the review to be minimal at this point. All right? But that is the challenge.

MR. HOLAHAN: Just to recall that, this stage the staff and AS and NSS are working on PRA standards.

COMMISSIONER DICUS: I'm aware of that.

MR. HOLAHAN: The industry to NEI has engaged the staff in a review of their peer review process. At the present time, what we do on any plant as we did on South Texas is to review each of these PRA on its merits for the particular application. And we do have in the Regulatory Guides and Standards Review Plan on how to use PRA, there's guidance for the staff on how to do those reviews, but ultimately we hope that having a standard and some agreed-upon guidance documents that will simplify this process considerably. So that's why these are going on in parallel with the rule making.

COMMISSIONER DICUS: On Slide 8, there's a comment made that's in the public interest to grant the exemptions and you went into that in some -- gave us more details on what those interests might be, but I guess my question to you is who is the public and would they agree with you?

MR. NAKOSKI: I guess I'm supposed to field that question?

(Laughter.)

COMMISSIONER McGAFFIGAN: I don't see anyone step up.

MR. NAKOSKI: I didn't see anyone.

COMMISSIONER DICUS: And I'm not withdrawing the question.

CHAIRMAN MESERVE: Yesterday, Marv Fertel said he was part of the public.

COMMISSIONER DICUS: That's right.

CHAIRMAN MESERVE: You go first.

MR. NAKOSKI: I'll start.

CHAIRMAN MESERVE: Whoever answers wrong may be a member of the public.

(Laughter.)

MR. NAKOSKI: Okay, with that in mind, seriously, the public in this instance is -- South Texas is part of the public. Broader than that --

COMMISSIONER DICUS: The people who live in South Texas.

MR. NAKOSKI: The licensee themselves --

COMMISSIONER DICUS: I understand.

MR. NAKOSKI: They're part of the public that we serve. Also, by improving our efficiency and effectiveness, Congress. We're meeting our budget requirements. We're doing what we can to do the most with the resources that we're provided.

So in that -- that's another basis for why I think personally it's in the public interest to move forward with this.

Probably the most significant driver though is that there is the -- we're focusing on the risk-significant components, those who are gaining a better understanding of the risk profile of South Texas and how to oversee that risk profile so that we can ensure more effectively that South Texas is addressing the issues that have the potential to impact public health and safety.

COMMISSIONER DICUS: The issue that I bring up with this and I'll pass in a minute and go on, not to belabor the point but we are having a lot of conversations with public interest groups and with communication and building public confidences, one of our cornerstones here, not for the ROP, but one of the Commission's cornerstones. And seeing that we had in some of the conversations this morning was the plain English situation. So if we were talking to a public interest group, whatever that might be, pro, neutral or con, would they understand that what we're doing is to the benefit of society?

DR. TRAVERS: If I can take a shot at that, I think we would, and have been attempting to characterize what we're doing in this set of issues. Very similar to what we did in a revised reactor oversight process, where we've talked about a number of benefits, but in my mind, as a senior manager in the regulatory agency, the result, the outcome that we now have the ability to better focus our limited, admittedly limited resources on those things that are most risk-significant is the key.

COMMISSIONER DICUS: Right.

DR. TRAVERS: However, there are other benefits to us in terms of budgetary and resource -- and to our licensee in terms of unnecessary regulatory burden. But for me, and what I would emphasize in discussions with the public, is what we have been doing in the ROP and that is our expectation that what we now have the advantage of being able to do is to focus even better and have our licensees potentially focus even better their limited resources on those things that are most safety significant.

COMMISSIONER DICUS: Okay, just one final question, if I may, Mr. Chairman, having this pilot and having the effort that's gone into it, have we had a public meeting in the area?

MR. NAKOSKI: I don't believe we have had a public meeting in the area.

COMMISSIONER DICUS: Thank you.

DR. TRAVERS: But all of our meetings have been public.

COMMISSIONER DICUS: Of course, but one like we did for the ROP, we went out and explained what we were doing.

MR. HOLAHAN: Can I try one little shot at your hard question?

COMMISSIONER DICUS: You may take whatever shot you want.

(Laughter.)

MR. HOLAHAN: Maybe shot was the wrong word.

(Laughter.)

One of the things that makes that a difficult question to answer is it's the staff's and the Commission's job is to determine that use of nuclear materials is safe and there's obviously a balance involved that there ought to be some social benefit to using it and that was the Congress' role in saying that writing the Atomic Energy Act authorizing there to be a commission and to do these sorts of things, but it's not very comfortable when the staff is sort of asked to talk about what good nuclear power is doing and so the public sees it as a balance of the value of electricity or the competing sources of electricity or something versus safety. We're always more comfortable talking about things being safe or safe enough rather than saying, they're providing some other social good and I think that makes for a difficult answer.

COMMISSIONER DICUS: Yes, and I want to make that distinction. I'm not indicating or suggesting that we need to go out because we can't promote, but what we need to be sure the public understands what we're doing and why we're doing it. Sometimes they don't, that's the point.

COMMISSIONER MERRIFIELD: I think the Commission raises a very good point. The language you choose to say this is the public interest may not be what you really mean. Really what you mean along your lines is that the granting of these exemptions maintains our safety mission and doesn't erode safety that is in the public or enhances it.

CHAIRMAN MESERVE: Commissioner McGaffigan.

COMMISSIONER McGAFFIGAN: Just on this last point, I think the two answers were fine. The traditional answer we've given is that this will help us be more safety focused and by capturing the RISC-2 system we are getting some insights that we didn't have in our previous solely deterministic framework and presumably the RISC-2 treatment requirements are enhanced compared to what they would have been otherwise. So I think -- I think I with a straight face would say it's going to be better safety and save resources for us and for the licensee in the long run. Go back to rule making resources, Mr. Matthews. Do you have the resources that you need in your budget to do the Option 2 rule makings and I guess you have one Option 3 rule making 0.44 that is soon to be before us.

MR. MATTHEWS: And yet another which --

COMMISSIONER McGAFFIGAN: Then 50.46 after that that will be tossed over the transom from Research to you. At the moment, it's Research's responsibility, but you catch the ball and run with it, once they turn it over. So the reason I raise the issue is that if there's a paper for us that's a relatively straight forward paper, I won't even say the subject, but at the end of the paper which rule making, from your shop or somebody's shop at NRR said two FTE, not in the budget, but will reprogram if you guys decide to go forward to get those two FTE, these are bigger rule makings and I looked at your budget for FY2002 and I couldn't find all the resources that would be needed to do all this stuff unless I didn't look in the right place.

MR. MATTHEWS: Well, you may have to look a little broader, given that some of the rules that you just referred to do involve Office of Research budget as well in terms of technical support for 50.44, some continuing, in fact, significant continuing effort with regard to technical basis for 50.46. There's some dollars that have been factored into the budget with regard to getting support for regulatory analyses. In short, the rule makings that we have under way that you've even mentioned, Option 2, 50.44, 50.46, were addressed as early as 1998 in terms of anticipated challenges over the fiscal years that you describe and we have continued to factor those resource estimates into our successive budget request.

COMMISSIONER McGAFFIGAN: So they're in the budget.

MR. MATTHEWS: If we were to have a need for resources that would diverge from those estimates, either by virtue of the process being extended which we hope won't happen or being accelerated to a degree that we have to apply more resources in the short term, our first point of entry into the budget process would be internal to NRR through what we would -- you've heard us use the term, an add shed process, in which we would start through our process and only come to other offices, EDO and above when we decided that we wouldn't continue to meet our priorities and at the same time meet your expectations.

COMMISSIONER McGAFFIGAN: So you have the resources? You don't need resources.

The issue that Commissioner Merrifield raised, I just want to follow up on and at the risk of our General Counsel's eyebrows being raised or whatever, we did in Part 35 I think with some success although in the end result it isn't absolutely clear and in part 70 with clear success, allowed the staff to discuss rule language in public. In fact, I think in part 35's case, we told them to put it on the web page. I think they may have done that in part 70 as well in the preproposed rule stage. And I think it facilitated dialogue and particularly in part 70.

MS. CYR: That wasn't my concern. My concern was the suggestion that somehow all the dialogue that was going to take place was what took place before we ever issued the proposed rule. I wanted to make it clear --

COMMISSIONER McGAFFIGAN: Right, I understand.

MS. CYR: We have a formal required which we will --

COMMISSIONER McGAFFIGAN: Right.

MS. CYR: Once we've issued the proposed rule.

COMMISSIONER McGAFFIGAN: Okay, I agree entirely because you go ahead, you have these discussions with rule language in front of you, in public, but you'd go through a formal process where you look at the -- and you do make changes and in both of those cases we made changes from the -- but it alerted us

to what the issues were and so I for one do think that in this case and I believe in the 50.44 case, the 50.46 case. Yesterday, we were talking about amendments to part 52. I think all those cases, that the notion that the language is predecisional and that people have to do NRC-ology. I'm an old Russian hand, so I used to do criminology in order to try to discern what the rule language might be, I think, makes us less effective and efficient. So long as it's always sold as this is Dave Matthews. He may not even have Sam Collins or Brian Sheron support for it, but this is my language that I'm thinking of at the moment and tell me what you think of it. Senator Bingaman let me used to do that and I'm sure Senator Smith let Commissioner Merrifield do that well before a committee marked up or the Senate marked up or God forbid we got a conference on some language, so I am influenced by that, but I think that Commissioner Merrifield is on to something here in terms of speeding our process because you find out what the issues are earlier that way, I think. It's not that we're going to resolve them, but we find them out.

MR. MATTHEWS: I might add, the primary benefit we see if that were to happen on the instant rule making is that we would hope to limit the delta, if you would, between what we would see go out for public comment as a formal proposed rule and the ultimate final rule.

I'm not at this point in time willing to predict to what degree it's going to help us improve the schedule. We're pushing to expedite this schedule as much as we can and we in NRC and in concert with the other major offices and OGC are very shortly going to undertake yet again another review of the rule making process and we want to share our plans in that regard with you. I think, in the context of the 50.44 paper which is in response to an SRM which you issued some time ago in connection with 50.44 where you encouraged us to expedite and look for opportunities for expedition.

And so while this may be what I would put as an efficiency move --

COMMISSIONER McGAFFIGAN: Efficiency may not be at the outset. It may be at the end.

MR. MATTHEWS: Right. It may be at the end and frankly, it's also an effort that hopefully will improve quality of each of the products successively. NEI at the PRA steering committee last week expressed their desire to be able to see the rule language sooner, so that in their representation and they can give you their advice on it in the next panel, so that pilot activities could be facilitated as well because it puts the industry in a little bit of the discomfort position to conduct, which is at some expense these table top exercises relative to categorization and treatment with the staff when they're not quite certain what the target is that they're looking to achieve. So I think there's some process improvement benefits there while what you have to be seen just the degree to which it's going to help us improve the overall schedule.

COMMISSIONER McGAFFIGAN: Let me ask one final question and that's with regard to there was a big debate a few months ago which hasn't been mentioned today and I don't think it's going to be mentioned in the second panel, as best I could tell, but it was the treatment. It wasn't the categorization, but it was the treatment of RISC-3 systems. Could you briefly describe how peace broke out on that issue because I was reading Inside NRC and whatever, the people who were going to your -- trying to describe the meetings you were having, all these public meetings. There was a strong impression that the South Texas Project folks that you were going to require everything of RISC-3 that you were requiring of RISC-1 and 2 and then you were giving --

MR. NAKOSKI: Let me defer to Jack Strosnider to describe that.

COMMISSIONER McGAFFIGAN: Here's the peace maker.

MR. STROSNIDER: Because John talked a little bit about this, but go back through that.

MR. NAKOSKI: Right. Really the short answer is we -- there was all this concern expressed by South Texas on what we were going, where we were headed in treatment and that was at the time in our review where we were employing our traditional approach that would look at how this process, these programs would be implemented. That's traditionally what we would go do, go look at how they do this. Well, these were their commercial programs essentially which they were saying these are low risk components, why do you need to know the detail on how we're going to do this? That made us pause. Was that level of effort consistent with significance of the components that were going to be exempted? Like I said in the formal presentation, we sat back and said clarify what's the criteria that we really need to meet to support the exemptions and we got to -- the peacemaker was we got to the point where it was high level elements and objectives. How South Texas met those is up to them. That's really -- that was a fundamental shift, fairly subtle, but fundamental and had huge implications on our ability to move forward.

MR. STROSNIDER: I think John did a good job. Just to be perhaps a little more helpful or a little more clarification, when we talk about our traditional approach in which we'd be looking at a more prescriptive deterministic approach, we basically end up with a program where we conclude any licensee that would pick this program up and follow this program is going to result in functionality out the other end. It has that level of detail and prescriptiveness and that we can make that finding. We haven't made that finding here. The finding we've made here is that they have the right elements, they have the right outcomes or expectations in their FSAR and we're providing maximum flexibility that we feel we can. As John pointed out, it's getting out of the hows and saying here's the expectation, this is what should be accomplished.

COMMISSIONER McGAFFIGAN: Mr. Chairman, I just thought of one last thing. It falls on something Marvin Fertel said yesterday. With 14,000, that's about $150 an hour, that's about $2.1 million, I assume that the South Texas applied for a fee exemption for at least part of that?

MR. STROSNIDER: They got it.

COMMISSIONER McGAFFIGAN: And they got it? MR. STROSNIDER: Yes.

COMMISSIONER McGAFFIGAN: Tell Mr. Fertel or whoever is here from NEI, that that's another part that isn't in the -- it's in the 78 percent rather than the 22 percent. It's in annual fees and I think it's there. I think we actually did some work, so it isn't all going away, but --

COMMISSIONER MERRIFIELD: Commissioner McGaffigan, I second your point. I think that's a very good point to make.

CHAIRMAN MESERVE: Good. I'd like to thank the staff for a very helpful presentation.

We have a second panel. The participants in it are Mr. Joseph Sheppard who is the Vice President for Engineering and Technical Services from the South Texas Project and Mr. Anthony Pietrangelo who is Director of Risk and Performance-Based Regulation for the Nuclear Energy Institute.

Thank you for joining us. Mr. Sheppard?

MR. SHEPPARD: We can probably go to the second slide, please.

(Slide change.)

MR. SHEPPARD: Mr. Chairman, Commissioners, good afternoon. I'm very glad to be here today and appreciate this opportunity to discuss our exemption request concerning the special treatment requirements, 10 CFR 50.

As the staff has just reported to you, we are about to conclude the first part of this extensive and evolving process. We've gotten to this point because of the frequent and in-depth interactions between the staff and SDP, as well as support provided by NEI and the rest of the industry.

I might add that the interest expressed by you in this Commission has also been very useful in helping to move this whole process along.

We're now at the point where the Agency is finalizing the safety evaluation and is ready to grant the exemption. I believe that this effort has been beneficial and a learning experience for both the staff and SDP and really has laid the groundwork for additional benefits to the industry in the future.

Probably, the key question at this point is did we get what we wanted? When one starts out on a process that's as ambitious and as complicated as this one, you can never really accurately predict where the outcome will be, but I'm very pleased to say, however, that based on our review of the preliminary safety evaluation that together we have achieved what we intended to accomplish.

If we could go to the next, slide, please?

(Slide change.)

MR. SHEPPARD: As I said, we have reviewed the Preliminary Safety Evaluation in depth and at the staff's request have looked for factual errors and omissions. As Mr. Nakoski indicated, we provided our feedback in that regard on July 3rd. At first, one might think that perhaps this has some kind of negative connotation, looking for factual errors and omissions, but I must emphasize that this has been a long intensive and extensive process. We identified a number of places where in trying to document this three-year process the Preliminary Safety Evaluation needed some relatively simple clarifications and corrections.

Let's go on to the next slide, please.

(Slide change.)

MR. SHEPPARD: Let me again emphasize that the staff asked for this feedback and we've worked closely to resolve these final items. We're not addressing simple editorial items, but instead have worked to assure that out mutual understandings of the agreements we reached throughout the process are clearly described in the document. This process has gone well and we expect, as Mr. Nakoski said, no impact on the planned approval date of August 3rd.

Let's go to the next slide.

(Slide change.)

MR. SHEPPARD: With the approval of Safety Evaluation now, I believe, the really interesting part will begin. I often told my staff that like the dog that chases the car, they better be prepared for what to do with the car when they catch it. I think we're about to catch the car and to that end we've begun the development of our implementation plans as part of our business planning process.

What I want to assure you is that we will be taking a very deliberate and cautious approach as we implement this exemption. The changes will be subtle and slow for a number of reasons. First, many of the systems, structures and components still have strong, deterministic requirements imposed. Second, many of the changes will only occur when there's a need to make a change, for example, at the end of the life of some component.

And finally, we too, have to continue to change our culture at our station to be able to fully embrace the capabilities that this exemption will give us. I expect that we will be able to make some limited use of the allowances granted during our fall outage, but I fully expect it to take us a couple of years to modify our processes and to learn how to fully utilize the exemption.

Obviously, we will work with both the industry and the staff to share our experiences and our lessons learned as we move through this implementation.

Let's go to the next slide, please.

(Slide change.)

MR. SHEPPARD: This effort has largely been a prototype for the on-going Option 2 effort and we believe that the approval of this exemption sends a very strong message with regard to the Commission's commitment to risk-inform initiatives.

I said our effort was a prototype, not a pilot for Option 2. This is because I believe that while many of the requirements contained in the approval of our exemption are workable for SDP, I believe some of them to be too prescriptive for a viable rule. Again, I do not see this as a negative, but probably a necessary step as we move to Option 2 rule making and then hopefully on to Option 2
risk-informing of the regulations.

Let's go to Slide 7, please.

(Slide change.)

MR. SHEPPARD: In conclusion, we are pleased to be at this point in the process and are anxious to move into the implementation phase. It will be necessary, however, to continue to make -- continue to have strong, candid and cooperative communication that has characterized this process. As we move forward, it will be necessary to broaden that communication to include among others, region-based inspectors and other stakeholders. To that end, we plan to engage Region IV this fall, we're going to allow NRR to do that first, but we've already got that in the schedule. But even before that we have already had Region IV senior risk analysts on site and discussed some of the implications of this exemption with them in planning for the eventual implementation.

We believe that the approval of the safety evaluation and the granting of the exemption, that while doing this that we've taken a pretty

significant step here and perhaps a history step toward improving overall nuclear safety and as was discussed in the previous panel, we believe that is what truly is in this for the public.

We will improve nuclear safety by giving the staff and SDP the capability to focus our collective resources on those items that truly do affect safety and we believe that's a monumental accomplishment that collectively we can all be proud of.

Thank you.

CHAIRMAN MESERVE: Thank you. Mr. Pietrangelo.

MR. PIETRANGELO: Mr. Chairman, Commissioners, good afternoon. I'm Tony Pietrangelo from the public.

(Laughter.)

We're consistent from day to day. First, I want to start off by applauding the effort of South Texas and the NRC staff in working through a number of very, very difficult issues on both categorization and treatment associated with the exemption requests. That money will be well spent, I think, in terms of setting up the Option 2 effort, generically, and we are going to learn a lot of lessons from that, have already and I think as South Texas moves forward with implementation we'll continue to learn from that effort and that will be an effort well spent and will help the entire industry.

Could I go to the second slide, please?

(Slide change.)

MR. PIETRANGELO: You're already there. I'm going to cover four basic items: where we are at NEI 00-04 in the industry's implementation guidance for Option 2; talk a little bit about the pilot program and what's involved with that; then move on to the 50.60 rule making and then finish with some of the differences we see in the Option 2 effort from where the SDP exemption request went and then offer some conclusions at the end.

Slide 3, please.

(Slide change.)

MR. PIETRANGELO: First of all, we've been working on NEI 00-04 with a task force for well over a year now. The guidance has also been looked at extensively by our Risk-informed Regulation Working Group that's chaired by Jim Levine from Arizona Public Service. It builds on previous guidance and particularly the categorization piece of the guidance. It's over 70 pages long. It is quite comprehensive. It covers the full scope of PRA inputs, get into defense-in-depth expert panel reviews and so forth. So that the bulk of the current version of NEI 00-04 focuses on categorization and ensuring that we have a robust process from which to categorize these SSCs.

There's a lot less guidance on treatment. Basically what we cover are the high level elements of treatment and the principle reason for that is we think that the benefits, largely on Option 2 tie to being able to use our balance of plant programs to assure functionality on SSC's of low safety significance. We believe those programs have demonstrated that they can maintain the high reliability of the plant and components and one of the things I wanted to emphasize here is that really, the benefits of Option 2 in terms of procurement, inspection and follow-up testing really go to being able to use the existing programs that are out there. If, as a result of this effort, we have to develop some in between, some people have turned it "Son of Appendix B" type program, then we largely lose the benefit because the licensee would then have to maintain three different treatments instead of two treatment programs and I'm not sure that's consistent with the burden reduction effort associated with Option 2.

We last met with the staff on June 27th to review their initial feedback on Revision B of 00-04. There was general agreement at that meeting that the guidance, particularly the categorization guidance was sufficient for the pilots to move forward with their categorizing and IDP process. I believe we'll be meeting again in late August to get the rest of the staff's response to the comments we addressed in the last round. We've been through two rounds now. There are over 70 comments on the last version. I think we've cleared up about 10 of those. So there's a ways to go on this, but I think what we've found is that there's really no show stoppers in terms of the categorization guidance and that now we're working on the detailed pieces of this. We'll feed that information to the pilots as we go forward, but we don't expect it to have a significant impact on the pilot program.

Move to Slide 4, please.

(Slide change.)

MR. PIETRANGELO: Speaking of the pilot program, we believe the primary purpose of the pilots is to test the adequacy of our implementation guidance. They're really not at a stage yet, we don't think, to inform the rule making in any kind of substantive way. If this is going to be a risk-informed performance-based rule, it's going to have those high level requirements in it and generally spell out what the licensees have to do and we don't think these categorization details and how the IDP process works is really going to inform, at least at the proposed rule stage, that effort so we have kind of disassociated the pilot with at least at this stage the rule making process. We don't believe they need to be in lock step. In fact, on this particular effort, at least from my perspective, we're way ahead of the game. Most rules, the rule is finalized and then we're still developing the implementation guidance and piloting it after the rule has already been issued and the implementation date, like on 50.59 and the maintenance rule came much later, after licensees had a chance to implement that. So at least in this regard, we believe we're way ahead of the curve in terms of how the processes worked in the past and this is really a much better way to do it when you already have a sense of what the implementation is going to be when you're actually writing the proposed ruling.

Our pilot plants are Quad Cities, Wolf Creek, Palo Verde and Surry. I think David mentioned the initial IDP at Quad Cities will be mid-August. We've asked the other pilots to come forward with their milestones so that the staff can set up their schedule to participate in the activities. Generally, each pilot plant will select two to three systems to categorize and use the process on and we expect this process to take between 6 and 12 months.

Again, I think we're going to feed experience we get back from the pilots into the next revisions of NEI 00-04 and also I think we'll be able to get some harder data on some of the benefits. Right now, it's largely been a qualitative cost benefit assessment that we've been able to undertake and once these pilots get through the categorization and then can look specifically at some of the treatments and how procurement and inspection and testing may

differ, applying the BOP plants, we may be able to get some better numbers on what the benefits associated with this are going to be.

Can we go to Slide 5, please?

(Slide change.)

MR. PIETRANGELO: I was very interested in all the comments of the previous panel on rule making process. This came up in spades at our PRA Steering Committee meeting with our working group last week and I'll speak to some of those in a second. The Advanced Notice of Proposed Rule Making was published in March of last year. In fact, coming up on the train we even got it sooner than that. I think it was out in November of 1999 and it wasn't formally published until March of 2000. So that's been on the street for quite some time.

You talked about the need for exemption requests with the earlier panel. We really don't think that's going to be necessary provided that the rule making is done in a timely fashion. If the rule making takes three, four years or whatever, then you will, I think you will see exemption requests, but if we can it on a reasonable schedule, then I think the pilots won't be that far from finishing up their categorization and getting into the treatment areas before the rule would even be final. So there wouldn't be a need to pursue the exemptions.

We put in the slide some perspectives on what the schedule should be for the proposed rule and final rule. And I would recognize that differs from what the staff proposed in their presentation.

What are some of the reasons for why we think it couldn't be done quicker rather than just whine about the slowness of the process? First of all, I think you saw from the staff slides that the reg. analysis seems to be the critical path on the rule making and this came up at our PRA steering committee meeting last week and quite frankly we were confused by that. This is a voluntary rule. There aren't a lot of additional requirements, if any, in what I think what's going to be in 50.69 beyond some reporting things and record keeping and so forth. SECY 001-98 kind of laid out this policy issue for the Commission on the need to do cost benefit on additional requirements. I think he gave some pretty clear language back to the staff and the SRM that followed. We look forward to seeing the response. I don't know if you have it yet or not. It's due any day now.

But I think that SRM focused on cost benefits for additional requirements principally and in this one, this is kind of a voluntary rule that again doesn't have a lot of the hardware type things that maybe some of the Option 3 rules will look at and so we were struggling with well, it seems to us the regulatory analysis on this kind of Option 2 rule is probably the least important part of the whole rule making and shouldn't take that much time to do.

With regard to the formal process, I mean these dates are predicated on the formal rule making process that the General Counsel spoke to earlier. Unless there's some other acceptable means that the Commission lays out, I mean we're all for following the formal process and we haven't been able to have detailed discussions on the rule making because there's nothing been put out publicly available. So we want to get it out on the streets so that we can get at those issues. If there's another way to do that legally, fine. We'd advocate that. But at this point we have the formal process and we want to follow it and hence our want to have the rule published, proposed rule published as soon as possible.

Another point I wanted to make here and we talked about this at length with our working group last week and I think the 50.44 experience, there's some lessons to be learned there, and the way we tee'd it up with the Steering Committee was what is the level of precision/perfection that you need at the proposed rule stage? We're certainly not advocating shoddy rule making or rule making that leaves big parts out, but we think a good product can be put out for public comment. We don't expect it to be perfect, certainly, but when there's a substantive benefit, when there's consensus around what needs to move forward on things that have been out there for a while, it's better off to move forward with that, rather than try to tie up all the potential loose ends that may be down the road or additional -- and especially when you're in optional rule making space, either potential additional requirements or things that are at least at face value at this point. It's going to be very difficult to justify from a cost benefit standpoint. We shouldn't wait to move forward with the benefit on all this other stuff. And I think I mentioned before that again, we think we're way ahead of the curve here with the guidance being pretty well along and that should bode us well later.

Next slide, please.

(Slide change.)

MR. PIETRANGELO: This issue about Appendix T came up earlier and I'll go through this quickly. I think the intent was really laudable on the part of the staff, but it does raise some questions about how you would proceed, for example, if you had a prescriptive Appendix T, if there was a deviation from the methodology would you need an exemption request. If you wanted to revise the methodology later that would require a rule making. Our experience with detailed prescriptive appendices as an industry isn't that great. Most of us think about Appendix R.

(Laughter.)

I think the ANPR teed up the either or with Appendix T versus a regulatory guide that had the categorization methodology in it.

There's another way to handle that in 50.69, similar to the way it's handled in 50.55(a). The Director of NRR could approve an alternate methodology if there's revisions to be made and that's been acceptable to move forward with, for example, we risk informed ISI. We're really patterning at least at this point our effort on the risk-informed ISI model, that is, there was a review template developed after the kind of generic guidance was done, so each licensee submits to the NRC summary information, we agreed on the format and content of that summary. It has facilitated the revision of conformed ISI and we think something similar could work for 50.69.

Last item on this, Appendix T element does tend to complicate the existing rule making, because you have to have an interface between 50.69 and Appendix T. So if we're looking for ways to expedite the rule making process, this perhaps is one that would, in general, would make it less complex, easier to implement and so forth.

Next slide, please.

(Slide change.)

MR. PIETRANGELO: Differences with South Texas. I think most of these differences step from the fact that that was an exemption, this is a generic rule making and evidently that makes a big difference in the way staff treats the implementation details for a particular licensee. Our kind of principle going into this discussion on Option 2 is that unless someone has a compelling reason to do otherwise, we want to follow the existing regulatory framework that's set up for the rest of Part 50 as we go through 50.69, in particular, on change control and where in the licensing base these different things go. We just spent the last three to four years trying to fix all that stuff in a 50.54(a), 50.59, the commitment management, the FSAR update guidance, all those have been endorsed by the NRC. We don't have any exceptions on any of those documents, so we've got a real good system in place and again, our strong preference is to use that before we go off and think we need to develop new either change control mechanisms or different places to put these things in the licensing basis.

We don't think developing new criteria for determining whether prior NRC review and approval needed is necessary if the existing framework works.

Move to the next slide. We do envision less prescription and interaction on the treatment of low safety significant SSCs. However, if history tells us anything that has always been where most of the interaction and focus is on in risk-informed regulation is on what you do to the low stuff. I wish we could turn that around. We can envision it all we want, but we've got to make it happen at some point. A lot of the interaction at South Texas went through was on alternate treatment, if you will, and the description of that, and again, I think that's not consistent with the risk-informed performance base, the philosophy and we think we need to do better on that. And I think the letter we got back from the staff, giving us the comments on our guidance, I think spoke to this and finally we saw and I think this was what perhaps John was mentioning on the how versus going to the -- what versus how is what got us over the treatment hump, where really the finding is that the categorization that's done is robust and that there's ample margins such that if those low-safety significant SSEs begin to have increased failure rates there's still ample margin to catch that. In fact, we don't think you can get very far in this process if your low-risk significant SSEs start to fail. The oversight process can still look at design basis functions and run those through the SDP and treat them accordingly, so we think the process in place will catch that and again, we don't think we have to invent a new alternate treatment program to be able to achieve this finding.

(Slide change.)

MR. PIETRANGELO: Last slide, on conclusions, again, we think that the effort between the staff and SDP has demonstrated the proof of concept for Option 2 and that it is viable. We think expediting the rule at this process would help us keep the momentum going. We're about to get the exemption request published. We've got the pilot program started. The rule is the next place to go with this. Until some kind of alternate means to talk about rule language is developed, we have the formal process and all we're trying to say here is let's get the formal process started and get the thought going so we can interact because I think there are going to be some issues on implementation associated with the rule language.

Finally, we think there's a clear need to proceed with the Option 3 and risk-informed tech spec effort. We've got an oversight process that's risk-informed. We're about to have a special treatment regulation now that's risk-informed. But the technical requirements and the tech specs have to stay at the same pace or else you're going to have gaps. In the hallways here I've heard a concern about the integration of all these efforts in risk-informed regulation between Option 2 and Option 3 and the tech spec effort and my answer to that is that if we stay with the PRA and risk-informed methodology as the base of this, that will integrate all these efforts because we're not having to reinvent categorization for different applications, that we're staying with the same technical basis to support all these efforts and that will integrate these efforts over the long haul.

Thank you very much.

CHAIRMAN MESERVE: Good. Thank you, both for a very helpful presentation.

Mr. Shepherd, this obviously has been an immense effort for both you and for the staff. Congratulations on nearly getting there. You're right at the threshold obviously. I wonder whether you might spend a moment and reflect on the experience for us and whether there are some lessons learned that came out of this for the NRC staff and how we dealt with you on this exemption process on how this whole procedure has operated. I think part of the time was clearly, was no doubt expended because there was a conceptual breakthrough that was needed and that was probably a lot of effort to get through that hump as it was described by Tony, but I think it would be helpful to get your insights on our process.

MR. SHEPPARD: Well, I think this process has been a learning experience and I think that it's firmly rooted in what I would call somewhat classic change management and culture change. We had an existing culture, both from the regulatory side and from the licensee side in how to deal in this framework. I think that if you look in the literature on how you make these kinds of changes that first of all you have to have a vision and I think that at South Texas we had a vision, but I think that also within the Commission there was clearly a vision. And my chief interface there was Mr. Collins, but I think that he and his staff are drivers in terms of having a vision of risk-informing the overall process. I think you see that in the revised Reactor Oversight Process and a number of things that we're doing and I think that the South Texas vision with respect to risk-informing coincides very well with NEI.

I think the second thing is you have to have champions. I have very clear champions within my staff that continually push me. When are we going to do this? When are we going to do that? They continue to be two or three steps ahead of me in terms of what's next, but I think again within the Commission there had to be champions and I think that both within the NRR senior management and this Commission, the clear interest and the continuing to be interested and to push the process had a significant effect in making sure that we found ways to get through the stumbling blocks and the barriers that we found because in any kind of major change like this it's just human nature to want to maintain the status quo. So I think you have to have that vision. I think you

have to have the champion.

I think -- I need to give again a lot of credit also to the professionalism and the integrity and the perseverance of both the NRC staff and my staff in that these were tough meetings and anyone who participated in the meetings or observed the meetings will know that there was significant disagreement in a lot of areas. But both set of staffs understood what the vision was and what the overall objective was and the desire of their senior management to get to those end points and they found ways to do it and so I think those are really kind of the high level lessons learned. I think that this particular exemption request had some enablers that helped us get through this.

Our PRA, having been previously reviewed by the staff, I think, significantly advanced the ball and the fact that we had already gone through our graded quality assurance effort which had helped in terms of move the thinking along on categorization, etcetera. I think all those were enablers, but I think it gets back to the kind of basic Change Management 101, dealing with having a strong vision, having strong champions, senior management involvement and leadership and then a dedicated staff on both sides that understands what the end result and the end desires are to get there.

I hope that helps.

CHAIRMAN MESERVE: Yes, thank you very much. As you mentioned, I think that there's a difference between you and the staff on when the proposed rule would be appropriate. As I understood your comments, the ultimate objective is get the final rule out in a timely fashion and I think that the discussion we've had with the Commission was in part to discuss the fact that if there's a gulf between a proposed rule and a final rule that, in fact, might slow down the process and of course, it might make it more vulnerable to judicial challenge and so there's some interest in making sure if we have a proposed rule that's at least in the general target area of what a final rule would be and I think that some of the discussion we have is that there might be some benefit and interaction to make sure that the proposed rule is closer to the point.

MR. PIETRANGELO: I'm all for that.

CHAIRMAN MESERVE: But I understand your objective is not necessarily the December 2001 date. It's the 2002 date.

MR. PIETRANGELO: That's correct.

(Laughter.)

CHAIRMAN MESERVE: I'm not saying that's easy either.

Commissioner Dicus? Mr. Matthews just turned white.

COMMISSIONER DICUS: We nearly lost a staffer that way.

On the pilot program, just a couple of questions to you. The four stations, how were they picked? Were they volunteers or was there a method to the madness?

MR. PIETRANGELO: Volunteers and also had owners group support.

COMMISSIONER DICUS: Any has any criteria been laid out for what systems they pick? Will they all pick the same or --

MR. PIETRANGELO: There are different systems.

COMMISSIONER DICUS: And criteria for that?

MR. PIETRANGELO: There are some safety-related, some not safety-related. I think that's kind of what we were looking for in this, so -- and there's an old plant, new plant flavor here too.

COMMISSIONER DICUS: So there wasn't a real defined method for doing this?

MR. PIETRANGELO: No, I think in general we know what the pilot should do.

COMMISSIONER DICUS: And following up with my earlier question about who's the public and will they agree with the benefits they're going to receive, just again, out of curiosity, really, are you like with local governments or if you have public interest groups or you have people you normally liaison with, have there been any discussions going on with them on this issue?

MR. SHEPPARD: We have frequent interfaces with our local officials. I'd say -- I speak with the county judge every three to four weeks. We number the county commissioners, etcetera. They know in general what we're pursuing here, okay? They certainly don't understand the technical details, but they know from a high level that we're seeking to basically put the emphasis on the systems, structures and components that most affect the safety of the plant and therefore most wouldn't affect the public health and safety and to be able to treat those other components in a more commercial way. I think that in that conceptual way they have no problem at all with what we're doing. We have not held anything like a public meeting or anything like that, but we do spend considerable time with our -- especially the county officials, since we're kind of out in the middle of nowhere, but also with the mayors of local towns and stuff as well.

COMMISSIONER DICUS: Do you have a feel for all if some concern was expressed by any members of the public to their local officials suddenly if there's something in the paper about this or whatever that they're comfortable explaining? That may be a tough question for you to answer, but I'm assuming that so far they're comfortable with what you're doing?

MR. SHEPPARD: I think they're comfortable, but I think that probably more importantly that the county judge would have no problem in calling me up and saying, Joe, would you call up whoever and talk to them? They've got a concern. That's the kind of relationship we have. Not with this, but we have done that on other things. Either a county commissioner or a county judge would call me or Mr. Connell, our CEO, or one of the other executives and ask us to either go talk to a group or call a particular, even a particular individual. And we've had members of the public call us directly and we're very responsive to that.

COMMISSIONER DICUS: Thank you.

MR. PIETRANGELO: Could I have a little bit of that question also?

COMMISSIONER DICUS: Sure.

MR. PIETRANGELO: I think our working group has thought about this public confidence issue with risk-informed regulation and the plan we laid out, the first part was the EPRI white paper we sent to you in late June laying out the safety benefits of probabilistic risk assessment and that was really to show that we're not just starting today. This has been a long effort and really

part of the continuum and we think the results have been pretty good so far. We're also developing a plain language version of that paper to provide to congressional staff and media and other members of the public.

A second part of this effort is we're currently considering an initiative on updated PRA information and we've had some discussions with the NRC's PRA steering group in that regard also and we're on track right now to propose an initiative to our Nuclear Strategic Issues Advisory Committee in October. So this public confidence part has entered into our discussions at the working group level and we're trying to take some actions to address that.

COMMISSIONER DICUS: Good, thank you.

CHAIRMAN MESERVE: Commissioner McGaffigan.

COMMISSIONER McGAFFIGAN: Thank you, Mr. Chairman, one thing I might mention on behalf of the Commission is that we did invite David Lochbaum to be here today. He's serving, I think, a higher purpose that he's at North Anna participating in a peer review of their PRA, whatever the process is and will presumably be better able to discuss with the Commission next time he sees us what his views are as to PRA quality issues and how they're being handled.

In some sense, Mr. Lochbaum is the proxy for -- As we've been discussing the last couple of days here with Dr. Lyman and others, there's a limited number of these folks who are technically able to deal in our language and then try to -- oftentimes Mr. Lochbaum was better than we are translating it back to the public, sometimes to our dismay. But we were trying to -- David, I think, would have been here today, at least to talk about the PRA quality issue if he weren't advancing his education in that area.

The three treatment, the issue of having three treatment regimes, I may have declared victory earlier now that I read the fine print in these vu-graphs. Vu-graph 6 of the South Texas presentation says that "although the SER requirements are workable, they're too prescriptive for rule making." Are those treatment requirements you're talking about there?

MR. SHEPPARD: Well, some of them are treatment requirements. I think the things that we think are probably, I would think would be probably inappropriate are not real workable in a rule making Tony touched on. We're going to have a very extensive FSAR section that describes our categorization process and a number of things and there are very, very stringent change procedures that we would have to go to to change that particular section of the FSAR which are very different from the way we can deal with other parts of the FSAR. I don't think that's probably appropriate for a generic --

COMMISSIONER McGAFFIGAN: So it's not treatment. Taking up Tony's analogy, you have two --

MR. SHEPPARD: Well, we do have, there are certain areas that the staff was comfortable with us applying strictly what we call commercial, but there are others that they were not. So there are, I mentioned in one of my slides that there are still strong deterministic requirements on some system structures and components and --

COMMISSIONER McGAFFIGAN: Those are RISC-3 systems structures.

MR. SHEPPARD: That's correct. And we basically, as we went through this process, got as far as we thought we could get there and evaluated the relative worth of where we got and decided that was okay and moved on.

COMMISSIONER McGAFFIGAN: In terms of -- you have two and a half trains, so that's about right.

(Laughter.)

MR. SHEPPARD: And I think that's one of the things that we will look at in terms of implementation lessons learned that we'll be feeding back to both NEI and to the staff as we continue to work towards the Option 2 rule is one, are those things -- how much of a burden do they really add, and two, how much do they contribute to safety and we need to bring both those back so that we can feed that into the process that's then applied generically.

COMMISSIONER McGAFFIGAN: Okay, so peace has not totally broken out. This is something that's -- listening to Tony, a goal of NEI in this rule making which may or may not be achievable is to have -- the commercial practice treatment requirements be appropriate for the RISC-3 and RISC-4 systems.

Just as a passing, it's never been absolutely clear to me, RISC-2, do they essentially get treated like safety-related components?

MR. SHEPPARD: In many ways, yes. There's certainly in our comprehensive risk management program --

COMMISSIONER McGAFFIGAN: In terms of procurement and that sort of thing, do they get treated like --

MR. SHEPPARD: They get treated in procurement commensurate with the risk components that they have, but they don't necessarily -- many of the RISC-2 things really don't have an environmental qualification issue. Their balance of plan type things and so the environmental qualification issues wouldn't come into play, but in terms of assuring that we look very hard at the failure rates of the components with those things and if we need to step the quality requirements up associated with certain components we do. And I think that we really need to understand that we look hard at the failure rates of all of our equipment and that they get looked at within our corrective action program and that if we see unacceptable failure rates, we take action. We had a number of I-to-P converters that utilized in a number of secondary systems that began to show failure rates that puzzled us. And because we didn't change the manufacturer and we didn't change the model number and -- but the ones installed after a certain time period were failing at a higher rate than what we were used to and we went back and found that the manufacturer had changed the location of the manufacturer. They changed factories. And we made the necessary corrections and have gotten the failure rate back to where we believe it's acceptable. So I think that's part of the confidence that we have to build as we go through our experience and then go through the pilot plants and into the rule making is that the mechanisms that we have in place do work in terms of identifying failure rates that are unacceptable and making the necessary corrective actions.

COMMISSIONER McGAFFIGAN: The final comment I'll make is I express agreement with Mr. Pietrangelo about at the proposed rule stage, not necessarily having perfect packages. I think that perhaps we strive too much for that. We do have to have a very good package at the final rule stage, but I think a proposed rule should be a proposed rule open to comment and improvement including all aspects of the package. And there has been a tendency in the past here to try to have perfect at the start which is never achieved, but you lose time that way. So that's more of a comment to the staff than to you.

Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Mr. Merrifield.

COMMISSIONER MERRIFIELD: Yes, just briefly, I'll make a couple of comments and then just one quick question.

Commissioner Dicus raised the issues of public interaction and involvement with local government. I do have to say that in the visit I had at the South Texas Project earlier this year where I had an opportunity to meet with a local mayor and two of the local judges, I have to say at least in the Mayor's part I have yet in the two and a half years I've been a Commissioner to meet a local government official so effusive in their praise of the licensee and its involvement.

The second comment I would make is a lot of what we are able to do here is predicated in part on the quality of PRAs. I think there is wide recognition and I don't mean to give too many credits to STP, but wide recognition of the very high quality and a lot of the effort that STP has put into its PRA that underscores, however, the importance for the rest of the industry to have PRAs that are up to the task of dealing with the issues that we have here.

Mr. Pietrangelo, I know you have spoken about some of the peer review efforts in the owners group to try to go through those. Commissioner McGaffigan has talked to Mr. Lochbaum's efforts to be helpful in that regard.

I was wondering if you could give a little bit more meat, briefly, about what is underway with trying to peer review those and make sure that they are where they need to be.

MR. PIETRANGELO: The peer-review process started several years ago. It was initiated by the Boiling Water Reactors Owners Group. The last time I looked at a schedule for peer reviews, all the plants in the industry were supposed to be done by the end of 2001. That may have skipped a bit. I'm not sure. But I think the vast majority at this point have gone through the peer review process.

I think there's a number of factors that play on PRA quality and most of them are all moving in the right direction. First of all, the Maintenance Rule A-4 program, we always viewed that as a bridge to improved PRA quality because it's being used for the A-4 assessments. That's been out there now for some time. That, in and of itself, keeping the PRA reasonably consistent with the plan as is required in the guidance that we developed will help the PRA quality question. The applications that have been on-going for both ISI and tech spec AOT extensions and a variety of other things have served to provide more attention on the PRA.

The ASME standards about to be issued, that will provide another reference for licensees to use on applications. So I think all the things are pointing PRA quality in the right direction and because of that we're very confident that the PRAs can support Option 2 and I think one other factor is that if a licensee doesn't think they have a particularly good PRA, they're probably not going to be an Option 2 plant. I don't think anyone enjoys being, however many RAIs they're going to get from the staff as part of the review and I think they're going to have to be pretty confident of their PRA before they come and try to be a 5069 plant.

COMMISSIONER MERRIFIELD: Well, as any IN and its membership gets to the end of that process and those reviews, you might well, at least for my benefit and I'm sure the others would be interested as well is getting an update in terms of how that has gone and where things stand and I think given the interest shown by our stakeholders and by our staff on those PRAs, a transparent process by NEI to allow greater insight into what's going on with that would be helpful for everyone.

Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Thank you. On behalf of the Commission I'd like to thank both the NRC staff and our stakeholders for their presentations this afternoon. Although the process for getting to this point has not been easy, I think it has helped to better define the issues and the paths to their resolution and on behalf of the Commission, I'd like to express our appreciation for your efforts.

We're adjourned.

(Whereupon, at 2:50 p.m., the meeting was concluded.)