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NUCLEAR REGULATORY COMMISSION

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STRATEGIC ASSESSMENT AND REBASELINING

STAKEHOLDERS PUBLIC MEETINGS

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ASSURING SAFE OPERATION OF NUCLEAR REACTORS SESSION

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FRIDAY

OCTOBER 25, 1996

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WASHINGTON, D.C.

The Assuring Safe Operation of Nuclear Reactors Session was held in the Lincoln Ballroom of the Washington Hilton and Towers at 1919 Connecticut Avenue, Northwest at 8:00 a.m., Frank Miraglia, Jr., Acting Director, presiding.

PRESENT:

Chip Cameron

Doug Brookman

Frank J. Miraglia, Jr.

Steve Frantz

Gary Vine

Russ Bell

PRESENT: (continued)

Brian McIntyre

Tom Tipton

Luis Reyes

Janice Stevens

Jane Fleming

Tom Crites

Tim Johnson

Ruth McBurney

Alan Nelson

Lawrence J. Chandler

Henry Morton

Tom Hill

Steve Collins

Greg Gurican

Tom Hiltz

Themis Speis

Clayton Hinnant

Jim [illegible]

Tony Th[illegible]son

Lynne Fairobent

Jim Milhoan

A-G-E-N-D-A

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

(8:17 a.m.)

MR. CAMERON: Good morning, everybody. Welcome back. This is our second day of our public stakeholder meeting on the strategic assessment process. I believe that we had an excellent session yesterday. I thank all of you for your participation and your contribution to that, and for your observations and suggestions. It was a very constructive day, and I believe the NRC is getting a lot of valuable information out of the dialogue.

Doug Brookman and I, Chip Cameron, will continue to assist you as the facilitators for the meeting. Let's just continue the active and constructive dialogue that we had yesterday.

Again, for those of you who might not have been here yesterday, and just as a reminder for those who were, after the NRC presentations, if you would like to make a comment or ask a question, please raise your hand. After you are recognized, come up to the microphone. We also have some hand-held mikes that we'll be going through the audience with.

State your name and your affiliation, if relevant, for purposes of the transcript. We are transcribing the meeting. Try to be concise. We don't

have unlimited time. But yesterday, I think we had time for everybody to say what they wanted. But if we do get crowded on time, the facilitators may ask you to sum up your comments quickly so that we can give other people an opportunity to speak.

Now I would again remind you that besides participating in today's meeting, that there are a number of ways that you can submit comments on the strategic issues papers. You can do that through the Internet. You can do that hard copy. There are comment forms that you can fill out today and deposit with us. There is, two rooms down, I think it's the Georgetown West or Georgetown East room, but it's that way, you can videotape your comments for us.

In that same room, there are copies of all the strategic issues papers if you don't have a copy of them. Again, comments are due November 15, I believe. Yes, November 15. We are going to do two more meetings, one next week in Colorado Springs, and the following week in Chicago.

Now, in terms of our agenda this morning, we are going to be discussing the strategic arena of assuring safe operation of nuclear reactors. We have four papers in that session. Again, as we did yesterday morning, we are going to have a presentation, brief presentation of

the contents of the paper by the NRC staff, and then we will go out to you for discussion. We will then go to the next paper in the session.

We are going to break for -- we will have a break this morning during the first morning session. When we are done with the morning session completely, we'll break for lunch.

Then we are going to come back in the afternoon for two concurrent sessions. One of them is on nuclear waste. We are going to discuss low level waste, high level waste and the decommissioning of non-reactor facilities.

This morning we will be talking about the decommissioning of power reactor facilities. As I mentioned yesterday, the paper on risk informed and performance-based regulation that's the last paper for discussion this morning, has much broader applicability than just to reactor areas. So those of you who are interested in the materials program will also find that informative. We look forward to your comments on that paper.

The second concurrent session this afternoon is going to be on managing NRC finances. The focus there will be fees.

After we are done with the concurrent

sessions, we are going to come back here briefly for another plenary session, a short wrap up to just get any comments that we haven't heard. Perhaps I ask you a little bit about the process and just generally close the meeting.

The first three papers this morning are going to be presented one at a time by Frank Miraglia, who is the acting director of our Office of Nuclear Reactor Regulation. The last paper is going to be presented by Tom Hill, also from our Office of Nuclear Reactor Regulation.

Frank, I'll just turn it over to you now for the first paper.

MR. MIRAGLIA: Thank you, Chip. Welcome to the reactor arena. Arena sort of has an ominous sound, but I think I'd like to concur in Chip's observations that I don't think there was an arena, I think there was constructive dialogue and comment. It certainly didn't have the Roman gladiator atmosphere to it at all. I hope that continues for today's session as well.

But I will have three papers to discuss. I was sponsor for these papers. As a sponsor, gave broad guidance to staff. I would like to recognize Mike Case, the writer for this particular paper, who is presenting the slides. He will be joining at the table, keeping me

out of trouble during the discussion phase of the program.

Direction setting issue number 10 involves reactor licensing for future application. For over a decade, the agency has put into place a process for new designs. The part 52 process was put into place, rules were put in place, and there were three elements in that rule: the design certification piece, an early site review provision, and a combined licensing provision.

Since that time, we have been actively engaged in the design certification program. We have completed two design certifications for the evolutionary designs, the system 80+ facility for the combustion engineering design, for PWR, and the advanced boiling water reactor that General Electric designed. Those design certifications are before the Commission. After the Commission decision, those designs will be certified by rule. That is really a demonstration of the design certification piece of the part 52 rule.

We have not tested the early site review provisions of the rule. There is no combined license on the horizon.

Given where we are, the other thing we have under active review right now is the Westinghouse passive design AP600 design. That is under active review, again, under the Part 52 design certification process. That's a

summary of the active cases that are being processed under part 52.

Given the DSI, I stated as given the current environment, what should the Commission's policy on future reactors be. The Commission was anxious to test the process, has given priority to the design certifications, and given where we are in our projection for the future, where should we go next.

Some of the factors that bear on this decision is that as I stated, the objectives and we tested the design certification objective. The objective was to encourage standardized designs because of the safety benefits that could be gained in having standard designs.

The designs that we have within the country are four principle vendor designs, but with the different architectural engineer and the designs of the balance of plants, we don't have standardization within the country. It makes dealing with issues perhaps a little bit more difficult. One size does not necessarily fit all.

Across the globe, in the Japanese program and the French program, they have a little bit more structure in terms of standard design. That has its benefits. Those benefits were to be gained through a standardization process. That was one of the principle objectives behind the issuance of part 52.

Right now there is no new order for nuclear power plants on the horizon, as I have said. The applications for design certification are down to the one active one right now with Westinghouse. We are close to wrapping up on the two evolutionary designs.

The projection is, is that if we talk about our planning horizon out to the next five years or so, we don't see an application for a new order.

There's budgetary pressure on the industry. The program has been jointly supported by industry funding and the Department of Energy funding. The Department of Energy and the industry have been funding these advanced designs, the applications and budgetary pressures on the industry as well as the Department of Energy, and as you have heard as a consistent theme throughout the last day or so, on the NRC. Those budget pressures are real and are affecting the decisions to move forward on designs.

There is foreign interest in U.S. designs. There's a global market and most of the countries that have this interest would like to see the designs as a U.S. approved design. As was discussed yesterday, the area of growth in terms of energy need are the Pacific Rim countries. There is interest in the foreign area for reactors of U.S. design.

Over the years, there has been congressional

interest in part 52. Many of the appropriations bills in previous years directed attention and funding towards the standardized designs in terms of priority and resources. Given where we are and given the budgets for DOE and NRC, that interest isn't being expressed in terms of the budgetary processes as well.

We looked at four options in this area. The first option is a reassess and a reprioritize option. Basically, the current process is we do give priority attention to the design applications in terms of scheduling resources. We had staff set aside to handle these type of reviews.

As the interest is waning and as the workload is coming down, the thought process was here is that we would handle these within the context of overall agency priorities, would not necessarily get the highest priorities, but looked at it overall, across the agency and the office of prioritization system. That's basically the thrust of option number one.

Option number two is the sustained responsiveness. That sustained responsiveness is essentially what we have been doing in the past. Putting resources in priority attention to the designs that are before us. That is getting more and more difficult to do as the overall budgets are shrinking and the work load in

other areas is perhaps putting more demands on the staff, and the workload in this area, as I have indicated, is winnowing down.

So option two would be that we would put that attention in focus on scheduling resources for these designs.

Option three would be refocus our resources. The refocus would be a conscious decision to close out activities that are ongoing in an orderly kind of way, and to reassign the resources that are dedicated as those projects are completed, and refocus those to other activities within the agency or within the reactor program to support the activities in other areas.

The fourth option is the single solution. In terms -- and this one is one that says that if there's a national need and there's an interest overall by the industry and Department of Energy to focus on the pursuit of another design, that the agency, NRC, would take a view of being supportive. That if there is that kind of single focus in a coordinated national effort between industry and say the Department of Energy or other governmental entities to fund such a project, that NRC would take a role and support the regulatory activities necessary to support that kind of a program. That was the thrust of this single solution.

Each of these have different consequences associated with those. Those are outlined within the context of the issue paper.

These were the four options that were put before the Commission. The Commission provided the staff with its preliminary views. They are summarized within the next few viewgraphs.

They recognized that the fundamental economic decisions by license applicants will really determine what we have to respond to in terms of resource needs. In other words, if there's applications out there before us, we'll do our part to support those kinds of reviews, and that those decisions are going to be made predominantly on the economic decisions, the dollar decisions that the utility faces or the utility industry faces within that kind of context.

The second point that they raised is that we should continue to give priorities for reviewing. So it's sort of an option to a sustained responsiveness to those applications that are before us and that we are currently reviewing, and if new applications are made, to test the other aspects of the part 52 rule. It would have that sort of responsiveness from the agency and the staff in responding to those initiatives. That's the second point on the viewgraph.

The Commission went on to say that in terms of moving forward in terms of implementation of this overall approach, that we need to address some points. These points are outlined here.

The Commission indicated that the utility requirements documents that had been presented and formed the basis for each of the standard designs to indicate where they were with respect to the utility requirements document. These were documents funded by the industry and DOE that provided the basis for the specific applications for the evolutionary designs, as well as the passive designs.

That in implementation, we need to make sure that there is some maintenance of this utility requirement document through the first of the kind engineering. First-of-a-kind engineering was a program jointly being funded by the industry and DOE to complete some of the activity. That issue, funding is dwindling in terms of DOE budget. But the Commission's guidance was to the extent that there's ongoing activity in that area, we would develop implementation guidance for completing that activity.

Address an orderly closeout of all the activities and document the work performed on a number of programs. SBWR is the simplified boiling water reactor,

which was a passive design submitted by GE, where they did some testing and decided not to pursue. So the direction there is to complete and document where we were with that project in an orderly kind of way.

The MHTGR was a gas cooled reactor, and was a design being sponsored by the Department of Energy. We did not do a complete review of that, but we did do an evaluation, raised questions and issues with DOE. We have closed that project out with a preliminary safety evaluation report, and have documented the results of that review. So that activity, the orderly closeout would be a continuing kind of thing.

Then the last issue there is to take a step back and evaluate where we have been with the part 52 process based upon our experience today and to look at that for lessons learned and any improvements in terms of process, rules, guidance, and the like.

That is an overall summary of the Commission's preliminary reviews on DSI 10. Given the current environment, what should the Commission's policy be with respect to future reactors.

That completes my prepared summary of this particular issue. I would like to open the floor to questions, discussion, comment.

MR. CAMERON: Yes.

MR. FRANTZ: My name is Steve Franz. I am with Morgan Lewis and Bockius, LLP. I was somewhat surprised when I read the paper. I thought it was going to be a paper looking at what the policy should be on the licensing of future reactors. Instead, it appeared to be nothing more than a look at how much resources NRC wanted to apply in the future.

I don't know how you can determine what resources should be applied unless you determine your policy first, unless you determine your goal first.

I would suggest your goal should be as follows. Look at the advanced reactors. You have the system 80+, the ABWR, both of which are the safety plants ever approved by the NRC. They have a core damage frequency that is one to two orders magnitude safer than the current generation of plants.

In light of the increased safety of these standard designs, I would say the NRC's policy should be to reduce regulatory barriers to licensing new plants. Now there are also of course other possible policies too, but none of these policies were ever addressed in your paper.

I was wondering why you didn't really engage in a bottom-up review of what your policy should be, rather than just looking at the resources itself.

MR. CAMERON: Frank?

MR. MIRAGLIA: With respect to the broad issue, there is a Commission statement on advanced policy. The advanced policy is to remove those regulatory barriers. That was the basis for part 52.

The part that has been tested thus far is the design certification piece. I would agree that in fact the Commission's policy statement recognizes that the goal and objective of new designs would be to have safer type of plants.

Part 52 was the agency's response to providing that stable regulatory base, and providing the process of design certification, early site review, and then combined licensing. We have only tested the first part.

So the question right now from a matter of policy and strategic planning is, is where is the program going. We are in a response mode. As a regulatory agency, we provided the regulatory framework, one part of which has been tested. If there is another design put before us, if the early site review provision is to be tested, we will continue with trying to test that regulatory base.

But I think the policy is already stated out there. The question comes is there a need to reexamine that policy in recognition of what the current environment

is in terms of prospective application for use of that framework.

MR. FRANTZ: You described your policy as being in a response mode. There are other possible policies. You need not be totally reactive.

You influence the environment too. You influence the likelihood of new orders through your regulatory process. If you reduce some of the regulatory barriers, it is much more likely that we'll have a new order and much more likely we'll use the other parts of part 52.

MR. MIRAGLIA: That's a fair comment. If there are specific barriers and things, one of the things the Commission has asked us to look at is lessons learned. If there's issues out there that you think in terms of one of the focused questions that need to be considered within the context of this paper, one of the focus questions, the first or the second one, is if you could identify those specifics for our consideration in the development of this issue paper to be put before the Commission, we certainly welcome your comments on it.

MR. FRANTZ: I think we probably will be submitting some specific suggestions on how you can remove some of those barriers, given the increased safety of these new plants. I hope that you will consider those.

MR. CAMERON: Are you suggesting that there should be an option added to the paper, reduce regulatory barriers to the licensing of future plants?

MR. FRANTZ: Yes. Most definitely.

MR. CAMERON: Okay.

MR. FRANTZ: That would of course require you to expend some resources that are not discussed right now in your paper.

MR. CAMERON: But it would be active rather than passive, as you put it.

MR. FRANTZ: Yes.

MR. CAMERON: Which I guess is appropriate for this discussion too, but anybody else have a comment on that particular suggestion, about adding an option of reducing regulatory barriers? Yes.

MR. VINE: Gary Vine from the Electric Power Research Institute.

We have invested over the past 15 years, on the behalf of the nation's utilities and a number of international utilities, well over 100 million dollars in this program, trying to re-initiate and provide for the future an option for nuclear plants to be built. I think we have done this extremely responsibly. We have greatly improved the safety of these plants. We have incorporated operating experience. We have fundamentally gone back and

assured ourselves that we have resolved all the open safety issues.

I have got to tell you, of all the issue papers that I have read, this one is the one that to me is absolutely fundamentally out of touch with reality.

It is out of touch with reality because it does not recognize that regulation is a big part of the problem. It does site in one spot the existence of the industry's strategic plan for building new nuclear power plants, but it doesn't take the most important point of that strategic plan of relevance to the NRC. That is, that a stable and predictable regulatory environment is an essential prerequisite to building new plants.

The paper is obsessed with talking about when a new order might be placed and using when that order might be placed as the basis for its policy on what to do next and how to spend its resources. That puts the cart before the horse.

We must have not only completed design certifications on these plants to be able to do anything on the industry side, but we must have some evidence that there's going to be a predictable and stable regulatory environment for these plants if they are built.

Speaking directly to the comments that you just heard, the last four years have been marked by many

many many examples of unnecessary obstacles thrown up in the implementation of part 52, which are not required by part 52, which were not consistent with Commission policy, that have created unnecessary barriers, that send a very strong signal to the utilities in this country that life with a future reactor is going to be more difficult, more regulatory, more complex from a regulatory standpoint, more intrusive, than plants today. These plants are clearly a couple order magnitude safer.

We have taken a major step backward. This paper does not recognize the fact that there are fundamental new problems created by the detailed part 52 implementation, inconsistent with Commission policy, and inconsistent with part 52, that must be addressed.

MR. MIRAGLIA: With respect to the issues that you've raised, part 52 was aimed at addressing those kinds of questions. The questions of implementation that you are discussing have been raised by the industry in the context of the two evolutionary designs, and some of which in the passive design.

Some of those matters are before the Commission right now. I am not going to speak to those kinds of issues. I think to the content and the comments that you might want to have in terms of the direction, if you feel that part 52 is not meeting the objectives, I

think those kinds of comments need to be considered and provided to us for consideration in the context of this pape. in terms of strategic planning.

I am not going to debate the implementation and the questions that have been raised by the industry. The industry has taken a position with respect to those, provided those to the Commission. The staff has done it in likewise manner. That is a matter that's pending. That is not for the discussion here at this type of meeting.

But in terms of providing comments, in terms of what are the issues within the context of part 52, that need to be considered. The prospect of improvements in those areas are certainly kinds of comments and considerations that we are seeking. If you could provide specifics on those, we'll present those to the Commission in the context of the strategic plan.

MR CAMERON: Frank, did the staff contemplate addressing those types of issues that both of these commenters brought up within the context of the reassessment option?

MR. MIRAGLIA: The reassess was in terms of reassess where we are on the program, in terms of how we provide resources and prioritization and that type of thing.

The Commission has addressed it in terms of when the process is complete on the design certification of the evolutionary designs, when we're complete on the design certification, is to take a step back and look for lessons learned, and in that kind of context. Those comments would certainly be valuable in that context as well.

As I said, we looked at the evolutionary designs as testing those pieces of part 52. The designs that were put before us are only testing the design certification part of part 52 which had the overall objective I think everyone agrees to in terms of the industry and in terms of the agency and the staff, the Commission. The question is, is has the implementation of that met the overall objectives, and where can improvements be made.

We have not really completed that piece until the Commission's decision on those particular things are there. So I think it's going to be done in the context of that process in any event. But certainly those comments could be useful and would be useful for consideration in terms of the strategic plan as well.

MR. CAMERON: Okay. We've heard a couple of suggestions that perhaps there's an option and a very important option that should have been included in the

paper.

MR. BROOKMAN: I have one quick follow-on comment. This is Doug Brookman. I have forgotten your name.

MR. VINE: Gary Vine from EPRI.

MR. BROOKMAN: Gary, it seems as though in your comment, you questioned the basic thrust of the paper and the basic approach. But what I just heard Frank ask is if you have specific, more specific policy related issues that you would like to raise at this point.

MR. VINE: I see Russ Bell at the mike. I'll let him answer first, and then maybe add a few after that.

MR. CAMERON: Okay.

MR. BELL: My name is Russell Bell. I am with NEI. In terms of providing the kind of comments that you are welcoming, and we appreciate that, I would like to understand the Commission's preliminary views, if I can. We appreciate there's a continued priority and design certification as well as the siting and licensing elements of part 52.

That can be interpreted a couple of ways. I was hoping to get some clarification. We would like to think that in terms of continued priority on the licensing element of part 52, that that would embody an intent to move forward and address some of the major aspects of the

licensing element, even now as we go forward to prepare the way for the first license application or further real test of the process. We would like to think that that's encompassed in the Commission's preliminary views. Could you speak to that?

MR. MIRAGLIA: Mike, could you put that back up? I think it is embodied in that in terms of that they have revalidated the sustained responsiveness, number one.

Number two, in terms of the implementation guidance, that is to the utility requirement document and evaluate the design certification process after the design certification rule makings are complete pending post Commission decision to look at those kinds of lessons learned. So I think that that avenue is there. They are directing the staff to continue the activities in those type of areas, including early site reviews or whatever, as well.

MR. CAMERON: Does that answer your question?

MR. BELL: I think so. Thank you, Frank. These bullets here didn't seem to go to the next -- the other two elements of the process. So I would have liked to have seen something more specific. In fact, our comments will seek that.

MR. MIRAGLIA: I think if you go back to even the previous one, it says early site reviews and

licensing, advanced reactors. So I think they have reaffirmed that prioritization.

MR. BELL: As long as we're not waiting for the first license application to address some of the important issues that need to be addressed in order to allow the first license application.

MR. MIRAGLIA: Well, we've had that posture. We've dialogued with the industry in terms of early site reviews. We have met. That seems to say we should continue to give priority to those kinds of initiatives as they put before us.

MR. CAMERON: But it's clear that this second star does not depend on the NRC receiving an application.

MR. MIRAGLIA: I think that we're going to be in a response mode to industries' activities in this area. We have worked with the industry and DOE in dialoging on what those next steps be, information. We have had white papers and that type of thing.

If they are suggesting that we ought to provide resources and do something on NRC on an issue, I don't think -- I think we're in industry proposes and then we dispose and interact. I think that's what the second priority and option was, is that we would provide and give priority to working with the industry with respect to those initiatives.

MR. CAMERON: Okay. Thank you, Frank.

Gary, do you have any further things to add?

MR. VINE: EPRI's role in this is the design development part on behalf of the utilities. It's NEI's responsibility to deal directly with these regulatory issues.

I don't feel that it's appropriate for EPRI to comment in detail on all of the things that have frustrated the utilities over the last couple years, but I have got to tell you, that we have had at least one utility meeting of our utilities, responsible for the requirements document since this issue paper came out. I can't convey strongly enough how frustrated and disappointed the utilities of this nation are in where this issue stands.

The fact that we have attempted on so many occasions to communicate more effective ways of implementing part 52, and it does not seem to be sinking in.

MR. CAMERON: Okay the frustrations here. The first gentleman who spoke talked about a stable regulatory environment. I think you echoed that. But the particular frustrations you are talking about are specifically related to the licensing of future plants rather than the existing regimes. Is that correct?

MR. VINE: Yes. They have to do with the process that will be used to complete the full part 52 process of a combined operating license for a future plant in the united States. The process issues not the technical issues, the safety issues have been resolved very properly and appropriately by the Commission. We are satisfied with the technical resolution of all the safety issues. It is the process that's been put in place that is creating frustration.

MR. CAMERON: We have heard some very definite strong statements about this issue and another possible option. I am just curious, does anybody have another, any other perspective on that? Yes, sir.

MR. MCINTYRE: Well, actually, my name is McIntyre. I work for Westinghouse. It's not on the same option. You guys are all talking about the next option. I am the guy that doesn't have the FDA. We are kind of thinking beyond that.

I was told I had five minutes. So I do have a I think it's a four minute and 53 second prepared presentation that I will provide. So here I am.

MR. MIRAGLIA: We didn't put that five minute limit on you, did we, Brian?

MR. CAMERON: No, but he's committed now to four minutes and 53.

MR. BROOKMAN: Does he know about the video tape?

MR. MCINTYRE: No. The written comments, trust me, will be much larger than that. But whoever answered the phone said five minutes. So here I am.

As manager of safety and licensing for AP600 design certification at Westinghouse, it is my privilege to outline to you the status and progress on the AP600 design certification program, and comment on the appropriate Commission policy for licensing of future reactors.

Congress's Energy Policy Act of 1992 defines several imperatives which must be addressed. Among these imperatives is the need to keep the nuclear option open for the United States. In a response, the nuclear industry has developed a comprehensive strategic plan aggressively devoted to making sure that this country has the nuclear option.

Our nation's economy growing even at a moderate rate, will dictate the need for additional generation capacity. As the need for new baseload generating capacity arrives during the next 15 years, we must have all available options at the ready so that effective choices can be made.

Keeping in the forefront of nuclear technology

is also vital from an international perspective. The United States has long been the world leader in the commercialization of nuclear technology. The world continues to look to us for technology development. Indeed, without a strong nuclear program, our influence and shaping the international non-nuclear non-proliferation regime would be greatly diminished.

The export market is also significant, with up to 50 nuclear power plants expected to be built in Southeast Asia over the next 15 years.

The AP600 design has generated such strong interest world wide that 20 nations have joined in engineering and testing efforts. This international coalition is strong evidence that the world still looks to the United States for leadership in nuclear power and that the AP600 meets the test as a world class product.

In 1990, Westinghouse was awarded the 120 million dollar cost-shared design certification contract from the Department of Energy and EPRI. In March of 1993, the 158 million dollar companion cost-shared program, first-of-a-kind engineering was awarded to Westinghouse as a result of a market-driven utility selection process. These programs will provide the certainty, and safety, licensing, cost and schedule which is needed for public investor and utility confidence to proceed with nuclear

power.

Westinghouse has already expended 125 million on these two essential programs, and has committed to repay 25 million dollars of the DOE funding on design certification as royalties from the sale of the first AP600 plant.

We have proceeded aggressively with the program and have successfully completed the test program at Oregon State University and all other design certification testing programs at an expense of over 40 million dollars. The results of these test programs have been successfully used to verify the computer programs used to evaluate the performance of the AP600. The NRC even now is using the world class Oregon State test facility for their own research programs.

The design certification program is now 88 percent complete, and is targeted for final design approval from the NRC in 1997. At the conclusion of the program, Westinghouse will have spent over 22 million dollars in NRC review fees alone.

The ability to construct AP600s around the world, particularly in the Asian nations that will place orders for nuclear power plants in the next three years, depends on the timely receipt of a final design approval from the NRC. Being licensed in the country of origin is

essential to competing in these foreign markets. Delays will give foreign competitors a crucial advantage and potentially deprive the United States for these very important American labor intensive orders. China alone expects to increase their nuclear generation capacity by 30-fold over the next 24 years.

It should also be noted that the AP600 program has the support of Congress. For example, the House Budget Committee has made it clear that the ALWR and AP600 programs meet their criteria for federally funded programs, and that the fiscal year 1997 program has been approved by Congress.

Substantial progress has thus been made in the AP600 program and the full support and cooperation of the utility members of the Advanced Reactor Corporation, the Department of Energy, and the domestic and international members of the AP600 team.

We believe this progress and this program is vital to the future of nuclear power in America, vital to developing technology exports, and necessary to maintain and enhance our influence in international nuclear policy.

We thus strongly recommend that the AP600 design program for the NRC be completed on a priority basis in accord with option two, that of sustained responsiveness of the advanced reactor direction setting

issue paper.

Thank you for your time.

MR. CAMERON: Thank you very much. I was going to ask you if you could put that in the context of the options. You did at the end. In other words, support for option two, which I guess is part of the Commission's preliminary option. Right, Frank?

MR. MIRAGLIA: Yes. Might I ask Brian, the other suggestion that I heard is an active role in terms of sustaining the nuclear option. I think if there are specific comments as how that could be done, and what role does the NRC have and can play in that given its statutory base of it, and how to interact.

If there's some discussion or comments or thoughts on how that broader objective that I heard in the initial part of your statement, and I believe suggested by some of the other commenters, I think that would be helpful in the comments that you might provide to us in terms of the overall strategic plan.

MR. MCINTYRE: Sure we can put that in the final paper. I think where you see that, Frank, is the fact that licensed by the NRC is truly the holy grail when you are trying to sell a plant overseas. In our case, what they are looking for is the fact that the staff has looked at it, and they've made a good honest assessment of

the plant. They have done the confirmatory research and they have scrubbed it.

MR. MIRAGLIA: I think the paper recognizes the importance of that and discussed that as a factor for consideration. To the extent that the broader issue of how the option can be maintained overall for the U.S., and what specific role the NRC could play within the statutory limitations on the agency. If there's thoughts on that, that would be of interest.

MR. CAMERON: Further comments out there? What about some of what we might call the outlier options. Does anybody have any thoughts or comments on option four, the so-called single solution option? Does everybody understand what option four is?

MR. MIRAGLIA: Maybe I could expand a little bit.

MR. CAMERON: That would be great, Frank.

MR. MIRAGLIA: It was in terms of being responsive to the Commission to look at innovative out of the box type thinking. It sort of addresses the issue in a very, very broad kind of way, in saying if there's really that need, somebody has to articulate that need. The NRC recognizes it has a role to play, but that role is confined to the regulatory role and that kind of thing. It would be supportive of that kind of issue. So to that

extent, I think it does cover some of the thoughts, maybe very very broadly.

But it was seen that there needs to be that kind of articulation of an overall policy regarding the nuclear option. Then certainly NRC has a role in playing that.

It's the question of our role as regulator as opposed to a promoter in that kind of thing. There's a suggestion in there for that kind of consortium out there to present that kind of thought. We would examine that and consider what our role is on that.

MR. CAMERON: Thank you, Frank. Any, with that explanation, any comments on option four? Any other comments on this issue, any perspectives from interests outside of the nuclear industry? Okay, well let's do the next issues paper.

I should point out that the viewgraphs for these presentations are in the back of the room and also Frank, you might want to introduce Luis.

MR. MIRAGLIA: Yes. I didn't introduce him. That is an oversight.

MR. CAMERON: And it's Region III, remember.

MR. MIRAGLIA: And that's a good segway, because we're going to talk about reactor oversight. But let me correct the oversight. Luis Reyes is the deputy

regional administrator at Region II. We took pains yesterday to clarify that on the record.

MR. REYES: Thanks, Frank.

MR. MIRAGLIA: In the context of the strategic planning committee, we looked at -- the reactor area and reactor program cuts across lots of the agencies activities.

In the early stages, we had a reactor subcommittee. On that subcommittee was Luis Reyes, representing the regions and the regional perspective. Ed Jordan, from AEOD, and also Dr. Themis Speis, from Research, to get as broad a perspective of the reactor issues, because they do cover a wide gamut of the agency's activities in the reactor area.

So Luis is here today for moral support. Dr. Speis and Ed Jordan are here also in that kind of context.

DSI 11 talks to operating reactor oversight program. Before we talk about the DSI, we do have an oversight program. I would just like to say that the reactor program is based upon -- the primary responsibility rests with our licensees. The NRC does not design nuclear power plants. The NRC does not construct nuclear power plants. The NRC does not operate nuclear power plants. What it does it is has a licensing and a regulatory process that licenses specific utilities to

carry out those functions. As part of that activity, has an oversight responsibility for the implementation of that program.

Within the elements of that program, there is a licensing aspect, there's an inspection aspect, and then there's a performance assessment piece. Those issues are discussed in the context of the issue paper.

Those are all three important elements to the reactor oversight program. We have an audit function, in terms of our inspection. If we change the licensing process, we need to consider does that change necessitate a need to the inspection or our process or how we assess the performance of licensees. So it's an interactive kind of relationship with respect to the three elements of that program.

The program is not a static program, in that the process of oversight looks at operating experience, examines research information, and has a feedback mechanism within the context of changes to the process.

There's lots of challenges within this area. The specific DSI was given the changes in the external and internal environment, what are the implications for the current strategies for dealing with operating reactors.

Some key factors that are discussed, the program is a stable program in the sense that licensing of

new reactors is not on the horizon. So in terms of the work load, there's a stable of operating plants out there that we have to provide the reactor oversight for continued safe operation of those facilities.

A projection was made in terms of looking in a three year to five year planning window, three to 10 year planning window, is that three to five years -- three to five reactors are expected to shut down perhaps prematurely in that time frame. That reflects past experience. In the recent past, that's about the number. Given economics and the changing environment and economics, that the -- so that the stable of reactors is going to be about what it is today, with some reductions.

The number of new requirements are expected to remain relatively low. That does not mean that there's not going to be any new requirements, because as we gain operating experience, that does require us to take a step back and look at new requirements, new positions, changes to our program.

The next slide continues on some of those. Plants are getting older, aging of equipment, and it does raise new issues that need to be considered. So there is a range of new requirements that are under consideration and that we've been having dialogue in terms of rule makings and guidance documents in the agency's processes.

In terms of external factors, the industry deregulation and increasing economic pressures. This was discussed a bit yesterday in terms of some of the comments from some of the participants yesterday. I believe Mr. Riccio from Public Citizen alluded to it, Dr. Johnsrud. I believe Ms. Fleming raised the concern, is that there's an economic deregulation on the horizon in terms of economic deregulation of the electrical utility industry.

That has a number -- raises a number of issues for the agency to deal with in terms of what's the impact on that, and how is that going to change the regulatory climate.

The agency has looked at financial qualifications in the broad sense, and the context has been is that being an electrical utility within a regulated economic framework provided some stability. There's changes in the wind.

We are trying to look ahead and be perspective and saying what do those changes mean to our regulatory program, and to how we should look at licensing of aspects of that, inspection aspects of that, and performance assessment aspects of that.

We have a number of activities under way that I'll touch on when we get to DSI 24, but they are relevant to some of the discussion here.

There has been lots of emphasis on risk informed performance based regulations to make the process more efficient, the current process more efficient in terms of concentrating on the significant risk contributors and to rationalize the regulations and the requirements with their importance to safety.

We have had activities in this area for cost savings in terms of reducing burden. We are warranted within the context of our licensing process. Risk informed performance based regulations is a paper that we'll be hearing a little bit more about this morning. That's something that we have been doing, and we need to do in the context of all of these external factors. Some of these play in both types of direction.

The industry has expressed concerns in the past about the level of our inspections, the intensities of our inspections. There was discussion yesterday at the morning session relative to the role of industry and credit for self assessments. Some of those aspects have been folded within the context of the program.

But again, all of these need to be done in a balanced kind of way. That term balanced was used in a number of instances in our discussions yesterday on some of those issues in terms of the roles of the industry, the need for the public to be involved and know in terms of

the public response of the initiatives. So that balance has to be there. If those changes are made, they have to be made in full view of all our stakeholders. So that's an issue as well.

As I said, there's component and systems are aging. Issues are being raised. They have to be dealt with in the context of the safety implication of what we see out there in terms of the operating experience for those types of facilities.

As a result of that component aging operating experience, safety issues will arise. They need to be dealt with. They will change the program in terms of either licensing, inspection or performance assessment.

There is continued public concern regarding the safety and the interest in the regulatory process. There was a reference yesterday to the lapses in the regulatory process that have been made very publicly visible by facilities in the northeast, New England. It raises questions and vulnerabilities in our process and our program that need to be considered.

As we were putting this issue paper together, we were trying to address some of those issues. It's a process that is an ongoing process. Some of those areas are addressed in the broad context of the paper of those. The questions that are raised from a programmatic point of

view in terms of the 50.59 process, the lessons learned that come out of the Millstone facilities, the lessons learned that would be evolving from the Maine Yankee facility. So those are referenced in here. Those are going to be factored into our program, and have continued a type of change.

The options that were considered. To review the process in the context of the lessons learned and develop mechanisms for a systematic reexamination of the oversight activities to assure continued effectiveness. We have within the context of our program, an assessment of the implementation of that program.

That has raised issues and questions identified by our own assessments, identified in terms of experience out there, identified by the Commission for us to look at changes in improvements to the process. Some of those are referenced within the context of the paper. A few examples.

In terms of performance assessment, the question of making that process more visible and understandable to the regulated community and to the public, there's been an activity that the Commission, the current chairman in particular has asked the staff to take initiatives to look at the performance assessment process. It is evolving.

There have been a number of briefings of the Commission on how that process has changed with respect to the systematic assessment of licensee performance program, how we conduct plant performance reviews, and the senior management meeting processes to make that more visible, and to have some more quantifiable type measurable type objectives. So those activities have been ongoing.

I referenced the Millstone and the Maine Yankee experiences, raised some issues in terms of 50.59 process, the FSAR. The expectations we have for our staff in terms of communication of licensing basis and their activities, and their relationship to inspection. Those are the kinds of ongoing activities.

So the next part of that option is to say what lessons have we learned to try to make our own internal oversight processes more effective, so we identify these things before they reveal themselves to us. So it's a regulatory excellence activity within the context of the implementation of the program.

The next option was how can we make the process more efficient and effective by working with the industry so we have continued improvements in performance, and recognizing that that has to be done in a balanced way with all our stakeholders, also increased the opportunities for the public's involvement in that type of

process.

There were a number of suggestions that were made within the context of the paper of working in terms of standards and guidance that the industry could propose that could be endorsed by the agency within the context of its process in a public kind of way so we can further improve not only the licensing and inspection process, but our performance assessment processes as well.

The next option was perform a business process in a reengineering. I believe there was some discussion of that in terms and in context of the materials program that was yesterday afternoon's session.

In the materials licensing area, they have used business process reengineering to take a step back and saying what can we do to modify the processes to make them more efficient and effective. There are perhaps some lessons to be learned from that materials program that could be applied to additional improvements and further improvements within the context of the reactor oversight activities that we perform.

The Commission provided its discussions in its preliminary reviews and have indicated that option one, we should continue with option one, in the comprehensive review, and include a systematic reexamination of the reactor program, and for us to look at our own assessment

processes again, to further improve. Not only to fix the issues and problems we've seen, but what can we learn from that, and to apply those lessons learned to broader areas within the context of the program.

The Commission also indicated that option two, they see a need -- they encouraged the industry and us to work together so that we can have guidance and guidelines to work with and to provide increased opportunities for public involvement in that process.

They see that there is a role for industry. That role can be explored. We're encouraged to go forth and work with the industry. We have done that in a number of instances. One instance that comes to mind that was discussed somewhat yesterday in terms of the tech spec improvement program.

The Commission endorsed a policy a number of years back for us to re-examine the tech spec program and suggest some improvements. The Commission put out a policy statement asking the staff to review that program. We worked with the industry in terms of the industry providing standard technical specifications for the different vendor type facilities, and coming up with model technical specifications.

That was done in a way that was in the public arena. There was public consideration of the policy

statement. That's an ongoing program.

I think at this time, we have 12 facilities, maybe a little bit more. I know it's double digits, but it's certainly less than 20, that have implemented the new tech spec improvement program. The improved technical specifications are a commitment on the part of each licensee to go back and re-examine the basis for the terms and conditions, and the basis, the design basis for some of the requirements. It requires a re-examination of that to move forward.

I think about 70 utilities have indicated and made a commitment to convert to the improvement of the tech spec analysis, to be accomplished over the next couple of years.

Again, that was done in a way that there was a policy statement promulgated. There was generic communications that were promulgated. Each of those had opportunities for public participation. The process was open to public's observation. The individual changes have the process.

Notwithstanding that, there are opportunities to perhaps do a better job of informing the public. I think that came out in yesterday's session, is that in terms of having more of an outreach in explaining what our processes are. The processes are in some cases very

proceduralized. The word ritualized was used yesterday by someone, I don't recall who. That leads to some frustrations in terms of process.

Perhaps we should discuss more of an outreach to put the process in context of perspective. The observation was made yesterday about the tech specs of that. If we take 40 percent of the material from limiting conditions of operations and put them somewhere, there is a perception that we're taking that off the regulatory table.

The process really says that we remove from those terms and conditions of the technical specification and put in other control type of documents which need to be examined.

So that's a shift in the licensing part of how we handle it, perhaps, but it had to have a countervailing inspection piece. We need to look at where, what processes are being used, what control procedures are being used in the needs of the inspection program to ensure that those aspects of that overall decision making process is maintained.

So I think we need to do a better job of articulating that. Because perceptions do become realities. So we can have perhaps an outreach in some of those areas as well.

The Commission indicated we ought to look at expanding the use of technology in terms of improving efficiency, in terms of new inspection techniques, new ways of communicating information and that type of technology.

They also indicated that we perhaps should examine more flexibility in how we provide staff to multiple sites. The current policy of the Commission is an N plus one type policy. They take the number of reactors, add one, and that's the number of resident inspectors that would be stationed at a facility.

There are some provisions for seeking exemption from that. The suggestion here is for perhaps the staff to go back and say is there another way of how we would staff multiple unit sites with residents, considering performance and other criteria.

As I said, the Commission has been very very clear. They want us to improve the effectiveness in the understanding of our performance assessment processes that we use in terms of salary. We need performance review process, the senior management meeting process. Those are ongoing activities. So to look for continued ways of doing that.

They indicated that they also like parts of option three. Option three is to try to learn the

lessons, as I said, from the materials activities, and take a step back and saying what aspects of this can be used within terms of the reactor oversight process and come back to the Commission and identify what areas could benefit in this area.

They have also asked us to go back and look at other regulatory agencies, foreign and domestic, in terms of seeking out best practices. What have their approaches been to licensing, inspection, performance assessments within the context of their programs. Foreign programs in the reactor area, other domestic regulatory programs, and see are there some suggestions of potential new techniques that perhaps could be utilized to make the process of oversight more effective and efficient overall.

That is a broad overview of that paper. Chip, I'll turn it back over to you.

MR. CAMERON: Thanks, Frank. On the last paper, we received some strong suggestions that maybe we missed an important option. Are we in the ballpark on this one in terms of the options that were identified? Any comments on this particular paper?

I guess I had one question that I would hope some people from the audience might respond to. Option two discussed increased opportunities for public involvement, as Frank had noted. Frank also talked about

the tech specs issue. Does anybody out there have any suggestions for how opportunities for public involvement could be increased in terms of either access to information or influence on the decision making process? I think the Commission is going to be looking for suggestions of that type.

MR. MIRAGLIA: In terms of that, I think the paper recognizes that there's an interaction between some of these issue papers and the public responsiveness issues that were discussed yesterday. Some of the issues bear on that in terms of this is a manifestation within the context of the reactor program, as well as all the agencies programs. There is certainly an outreach question for us to do.

We have made changes to the 2.206 process as was discussed yesterday. There are still some frustrations within the context of that process. Those changes have been made over what, the last year, Larry? So perhaps we haven't really realized, have they really improved the perception out there. We're looking for other ways of improving public responsiveness in other areas. So we would welcome comments.

Also, since we are in oversight, I would like to correct another oversight. Is this my third one? Mike Johnson was the writer of this paper. Mike did a

substantive matter to work and activity. I want to recognize his contributions to the process. He was the writer of this paper. I am just a sponsor of the paper, so I think the significant work was done by Mike, and I want to correct that oversight too.

MR. CAMERON: Okay. Thank you, Frank. Mike is over here, for people who don't know him.

I guess I would just emphasize that we would welcome comments on how public responsiveness or public involvement might be increased. It's a laudable objective. In terms of specific ways to do it, that's what we might be looking for.

MR. MIRAGLIA: There are some suggestions within the context of the paper, but we would certainly welcome additional thoughts and comment in that area as well.

MR. CAMERON: How about BPR? Is the reactor community excited about the BPR process? Is the reactor community out there? Do they know what BPR is?

You know, it has been used in the materials area. I don't know if any of our agreement state representatives or representatives from the materials license community who have had some exposure or experience with BPR might want to comment on the efficacy of that type of process.

AUDIENCE MEMBER: BPR is business process redesign?

MR. CAMERON: Yes. It is. The question is BPR business process redesign. The answer is yes.

MR. MIRAGLIA: Either redesign, reengineering. But that's the process. I came to the latter part of the materials session yesterday. There were some favorable comments, at least relative to what was done in the materials area.

I am aware that some of the utilities have used this process in their own internal processes. But it's the business process reengineering in terms of making processes more efficient and effective.

MR. CAMERON: I think we have fleshed Mr. Tipton out of the audience.

MR. TIPTON: I'm Tom Tipton from NEI. I have been sitting through this for two days. We were going to listen to the last two days, but I do have a couple points.

I think everyone believes there needs to be a complete airing of the issue. But I think in the environment that we are in today, in the economic deregulated environment, we need timely decision making.

Now we have gone through an enhanced participatory rulemaking process, and Chip, you were fully

involved in that. But I don't think it's an expedited process. You spent a lot of time, a lot of effort, and quite frankly, I am still waiting.

The other issue I want to make is my concern is if we had done this exercise in 1995 instead of 1996, I think the results would be different in that the northeast event has permeated the reports throughout. We are not looking at 15 years of improvement in our industry since 1979.

So the only request I have of the NRC, one of the main requests I have, is you have got to look at everything we've done. We have had an event, I mean not an event, but a situation. I would not call that an event. We are learning from that. But we have done a lot. So in terms of your performance indicators, our performance indicators, we have improved dramatically.

My worry is, now that we have had the situation of 1996, we are throwing out everything and starting over. I think that would be a big mistake, especially in oversight. Thank you.

MR. CAMERON: Thank you, Tom. Frank?

MR. MIRAGLIA: I would just like to comment. I think the paper does recognize that there has been improved performance in the industry. It also recognizes that while that performance improved, there are a number

of plants that have performance issues and problems that are a concern to the Commission.

The situation that we face is one of erosion of credibility of the process. What we have is a process. The reactor oversight that we conduct is very process oriented.

As I said in my initial comments is that the primary responsibility out there rests with our licensees. I think it's important for the licensees to share that burden of responsibility in terms of to address the kinds of issues and concerns.

I think you are right, Tom. The performance of the industry has improved over the last years. I think these papers reflect that. I think many of the reports and other documents that the Commission has put out in the public arena reflect that.

But there are issues that we have to deal with and assess what their impact is, and learn the lessons and move on. I think that's correct.

MR. CAMERON: Okay. Thanks, Frank.

Tom, do you have a further comment?

MR. TIPTON: I agree we need to address the issue that we have before us. But let me also talk about one other issue that I heard yesterday.

In terms of developing industry guidance, I

think we have had several excellent experiences that we can build on. The development of the industry's maintenance guideline is a perfect example of where everything was in a public forum. All documents were publicly available. Everything was reviewed and given opportunity.

Where I am struggling is what is the problem that we are trying to solve in terms of additional involvement? Now in license renewal, for instance, we are going through the same exercise with public involvement. I think it is working very well.

So as we go forward, I think when we look at the process of deregulation, competitiveness, that is not necessarily bad. The only problem I have had with deregulating the telephone industry is the calls I get at 10:00 at night, would you like to switch to MCI.

MR. CAMERON: Mine come at dinner.

MR. TIPTON: Someone the other day got a hundred dollar check for changing, so things are looking up in terms of the cost. But the reliability of my phone system has not changed at all.

So deregulation is not bad. It's here. It's something we're going to have to deal with. But my worry is, we're starting to re-engineer in terms of what we need to do.

For the oversight, I think it's extremely important that we make sure that there is safety value added. I think we all agree with that.

MR. CAMERON: Thank you, Tom. Tom has raised some interesting points. Does anybody have a response or further comment on any of the points that he has raised?

Okay, well, why don't we -- Jane Fleming, do you want to use the standing mike?

MS. FLEMING: Actually, I feel a little obligation to speak on behalf of the public as I announced yesterday. I am just a public citizen, not the public citizen, just a.

A lot of areas of this particular paper have worried me. I do have comments on it. One of the major ones is the deregulation. That is of great concern to myself and many members of the public that I have spoken to.

The whole area of the increased economic competitiveness, being familiar with the phone companies and everything, I do think Tom did have a point that this isn't necessarily bad. But it has to be watched very carefully.

The atmosphere for the cost cutting, the public perceives that as safety cutting. Whether that perception is true or not, the perception is there. I

think you have to be aware of that.

In Massachusetts, the attorney general and everyone else is jumping into this quagmire on the deregulation, and deals are being cut left and right of how we're going to approach this.

One of the things that again, concerns me, is some of the issues being brought to the AG's office is going back to the old performance based incentives, which I think when they came out a few years ago, the public's perception again, and I think to some extent was true, look, by you people putting these reg cases in place, you are pushing the industry to run to the edge of the envelope. We are more interested in safety.

If it is going to cost them a few extra dollars, let them spend the few extra dollars. But don't give them performance based incentives saying stay on line no matter what. It's trying not to say that, but that's about the bottom line that's coming out to you people. You know, there's a fear that there will be a reduction of safety there.

I just wanted to touch on again, public perceptions. When you are looking at industry involvement, the industry becoming more involved in setting the regulations and the guidelines, acting as more of a partner with you, the public perception, the public

looks at that really with a jaundiced eye, as you all know. I mean this isn't any deep secret I'm giving anyone on this one.

I would like to speak to Tom's remark too about the Millstones. Yes, the Millstones have become the cornerstone of everything all of a sudden. But when it comes to the Millstones, you know, I look at that one, I look at public involvement.

I can speak back to my own involvement on different things. What the Millstones have identified, which I was already aware of and have even more recently become aware of, I would rather have the public step out and have the NRC do their own job. But what I have learned over the years is with the public stepping in and prodding and pushing and what not, there are deeper inspections.

When you are discussing oversight of the industry and as regulators, part of the oversight process, and through this whole discussion paper I'm reading more and more inspect the paper, inspect the paper, inspect the paper. Well, if you want to go back historically, go back to the Pilgrim Task Force. Go beyond the paper and look at the physical reality. Don't just look at the paper that's presented to you.

The industry, I respect their position,

because I am the public. I also live in the business world. I know bottom line of the business world. I respect the industry's position for trying to keep their bottom line down. But I also as a member of the public, I want my safety protected which is your job as the regulators.

When you are doing that, I have learned through the task force. I have learned through a recent a..egation vehicle down at the Watts Bar licensing process, push long enough, push hard enough, be irritating enough, and you finally nudge the NRC to do the actual in the field inspections.

Often times, the NRC finds then, once you get in the field, compare the paper to the reality, and they don't match. I think there is a real necessity to go beyond just looking at paper. You need more in the field inspection.

You talk also in here, you speak to using the FSAR, which I am firm advocate. Go back to the FSAR. See if the FSAR matches the reality. Also go back to your own SSARs, which is quoted as being the NRC's primary licensing documents. Look at your own SSARs, be sure they match the FSARs, and that they match the physical realities.

These are the things that the public would

like to see. Obviously, I number one, don't have the knowledge to go in and do an inspection, don't have the desire to go in and do the inspection, and I am not empowered to. That is your job in the NRC. Go in. Do the inspections. But don't just look at paper. Look at the reality. Thank you.

MR. CAMERON: Thanks for those perspectives, Jane. I think that some of the latter parts of your remarks are also relevant to the paper that Ed Jordan discussed yesterday on role of the industry, the paper and the reality.

Does anybody have a comment on Jane's observations?

MR. MIRAGLIA: Chip, I would just to say that I think in general, I think in terms of the economic deregulation issue, I think I agree with what Tom said and also with what you said, Ms. Fleming, in terms of -- and the Commission has indicated to the staff that we need to have a sensitivity to that issue to make sure that we are aware of what impact that could have in terms of safety implications in terms of safety performance.

So I think Tom is right in saying that deregulation is not necessarily bad, but we need to have a sensitivity to what the potential impact of those things are for the areas that we regulate.

You pointed out how the local entities or the other governmental agencies might regulate and have performance incentives and that. This issue has come up in the past in terms of some nuclear facilities. The Commission has taken a view at that in terms of what the potential safety implications are in there.

I think the key word is perceptions. There are perceptions out there. I think if you look at the options and the Commission's preliminary decisions, they are saying to try to work with the industry, but also have the public. It's the balance issue that was discussed in some of yesterday morning's discussion in terms of public responsiveness.

MR. CAMERON: Thanks, Frank. Before we take a break, does anybody have any final words for us on this strategic issues paper? Okay, well let's take a break and be back at 10:05. That gives us about 20 minutes.

(Whereupon, the foregoing matter went off the record at 9:49 a.m. and went back on the record at 10:17 a.m.)

MR. CAMERON: Okay. We're going to get started for the remainder of this morning's session. We have two papers left to discuss. I think it's instructive that in both cases, there are important implications for the materials licensing area.

We talked about those implications from the risk informed performance based discussion, but I think that some of the procedural issues perhaps that are raised by the power reactor decommissioning issue may also be instructive for the materials area.

I am going to turn it over to Frank, once more, to present the paper.

MR. MIRAGLIA: This is issue paper 24, which is decommissioning for power reactors. There was a paper I believe that was discussed yesterday that dealt with materials decommissioning. To make sure I don't make three for three, the writer for that paper is Singh Bajwa. He is not sitting at the viewgraph machine. Singh was on travel today and was unable to be here. But I did want to recognize Singh Bajwa's contribution as the writer to this paper.

The direction setting issue is what should be the NRC's strategy for regulating decommissioning activities at power reactor sites. This issue has been an issue that's been before the Commission a number of times. It is fairly -- it's under active consideration.

Back in 1985 or 1986, there was a change to the 50.86 that talked in terms of decommissioning rule and processes to be followed and procedures to be followed in terms of decommissioning power reactors. When that rule

was put together and drafted in terms of changing climates, the contemplation was is that plants would go to the end of their licensed life and provide it for a process to begin in a period five years before the end of the licensed period.

Towards the end of the 1980s and into the early 1990s, there were a number of plants that shut down for various reasons, in terms of economics and other reasons. They were prematurely shutdown facilities. The rule that was in place hadn't contemplated that kind of scenario.

The Commission was dealing with each of these premature decommissionings such as Yankee Rowe and Fort St. Vrain, Rancho Seco, Trojan, I think there was one more that I can't bring to mind right now, on a case by case basis. They directed the staff to go back and re-examine the rules to incorporate the lessons learned from those kinds of premature decommissionings. As a result, there were some rulemakings that were put in place at that point in time.

In terms of the factors, again, key factors, external factors is there's a potential deregulation of the power generation that has created some uncertainties in this area, particularly with respect to the assurance of decommissioning funds. It has an impact on the

vehicles and the financial instruments that are used, the change in the potential of no longer being an electrical utility, would have impact on the financial assurity provisions under the rule. So that issue is one that the external environment is affecting.

The going to economic deregulation of the industry and the competitive nature of the industry, more economic factors affecting the industry and operation could affect the utility decisions as to continue to operate, such as represented by some of the premature shutdowns or perhaps not seek renewal and aspects of this nature. So again, that's another impact or external factor that is to be considered.

Availability of waste disposal sites impact. There have been a number of instances where on-site storage facilities and applications for on-site storage facilities are receiving local and state approvals or are being hard to come by. That can impact continued operation of facilities.

Then there's public interest in what happens at a site for decommissioning, based upon site specific factors in the area of local interest. So these are all factors that bear on this issue.

Then again, the internal factor is the resources in the budget to implement the program.

The options that the staff considered in the strategic planning committee considered in this area is that as I said, this is an area that has been evolving and is of primary Commission interest and has been, since the mid-1980s.

The current strategy, which is option one, is to continue this strategy, is we're implementing the strategy for power reactor decommissioning in a number of ways.

There are three major rulemakings that have been underway and at various stages that are perhaps the principle foundation for that strategy. There's the nuclear part 50 regulation on power plant decommissioning. The rule was promulgated in final form in August of this year, it became effective.

In addition, there is a financial assurance requirement for decommissioning. That rule was proposed -- was out for public comment and proposed comment to deal with some of the aspects with respect -- that were raised in terms of perhaps deregulation and premature decommissionings.

Related to that area as well is there is an advanced notice for rulemaking that the Commission has put out for comment, raising a number of issues in terms of what the impact or the potential of economic deregulation

is, with an emphasis on the decommissioning funding activity.

Then the third piece is the radiation site release criteria, which I believe was discussed at yesterday's session. This is in the materials area. That rulemaking and that activity will have impact and be incorporated within the agency's programs and processes for reactor decommissioning. So the thrust of this, those three major rule makings.

In addition, there are a number of other efforts underway with respect to reactor decommissioning. There's an examination of power reactor decommissioning costs. There were cost estimates made in the past because of low level waste site availability, or because of on-site storage. Some of those factors, those cost estimates are changed or changing. There's a study underway to reexamine those cost estimates. That will be promulgated in terms of a rulemaking.

There's rulemaking activities regarding the insurance cost and coverage requirements for permanently shutdown facilities. That's an ongoing activity. These are all in various stages of the rulemaking process.

There's consideration of what should the physical protection and storage be, requirements be for storage of spent fuel at power reactors subsequent to the

decommissioning and shutdown.

These issues are all ongoing activities within the context of the agency's program. Those activities and the status of all of those are discussed within the context of the issue papers.

As I say, there were various stages of rulemaking. Some final rules have just gone into place. There are number that are in proposed rules out for public comment. Some are in the early stages, such as an advanced notice for rulemaking.

So it's range and gamut of activity. This option would be to continue with those activities underway and that the strategy is sufficient to proceed.

The second option would be in terms of can we move in the current direction and get some of these rulemakings done in a more aggressive way, proceed at pace with some of these decommissioning related rulemaking activities and get some of the implementation instruments in place sooner.

The rule making process is a disciplined type of process in terms of a proposed rule, period for comment, final rule. Can we see if we can take a more aggressive approach in trying to get some of these things in place more quickly.

The third option would be the converse of

that. Is that because of budgetary constraints and other things, should we perhaps slow down or reprioritize certain activities in this area.

That's the range of options that were discussed within the context of the issue paper. The preliminary views of the Commission are as shown here. They recommend us continuing with the approach.

In terms of implementation, they have looked at in terms of implementing guidance for some of these rules that we should seek perhaps more innovative approaches to pursue the implementation of some of these rules.

They went on to indicate that in pursuing the current pace of rule making, they gave some specific examples and possible approaches that might be considered. I think I would like to make sure that those are put before this audience, because these are additional kinds of questions and issues that the Commission asked stakeholders to focus on and comment on.

Those are shown on this viewgraph. The examples of these more innovative approaches is to transfer the power plants to agreement state control after the material is placed in dry storage or has been removed from the part 50 site.

How should we use the out resources in terms

of resident inspectors at the commissioned sites? Should there be a resident throughout the decommissioning process or only at the specific stages when major operations are occurring or not at all? That's an implementation issue that they asked the staff to consider in the implementation of these.

The last one is taking a performance oriented approach by reducing oversight and radiological assessment of the site when it's ready to be released. These are additional issues that were identified by the Commission that should be focused on within the context of the stakeholder meetings and the comment process and in the Commissioners soliciting your views on these kinds of matters and issues. They would be of particular interest to the Commission as well as to the committee, to forward those kinds of considerations to the Commission in terms of the stakeholder reports that will be going to the Commission.

That's a broad type of summery, overview of this area. I'll turn it over to Chip and look forward to your observations and comments.

MR. CAMERON: Okay, thanks, Frank.

The three options that are in the paper are basically a -- relate to timing in relationship to a number of approaches to this issue that the Commission is

taking. Basically, fast, slow, or maintain the pace. We want to get comments on those particular options. But are there other approaches?

I think the Commission gave a little bit of a hint with the additional questions that they asked, but be thinking about the issue of if there are other approaches that the Commission should be considering in the whole area of decommissioning power reactors. I guess I would just open it up for initial comments or questions on this particular issue.

MR. CRITES: Tom Crites, Gaithersburg, Maryland. I have a comment and a question.

Of all the issue papers that are being discussed, this one seems to be the most poorly developed. Giving an option of doing the same thing more or less, is not a great development or very imaginative. I think the Commission's responses indicate that as well.

If it is to remain as it is, I would suggest combining it with option paper number 9, which is the decommissioning of non-reactor sites, and retitling them.

Indeed, there are options discussed in paper number 9, options two, three and five, which would appear to be pertinent here, as well as comments of the Commissioners. So either one might combine them or develop this option paper more fully.

My question deals with non-power reactors, research reactors, university reactors, which are not addressed in either this issue paper or number 9. I wonder, is that just because there are too few of them to bother with?

MR. MIRAGLIA: In terms of numbers, not too few. There have been non-power reactor decommissioning. They are usually smaller reactors, more well defined. There's a pretty experience in terms of the decommissioning of that and the processes appear to be in place.

I believe the total number of operating non-power reactors now is in 40 plus. In terms of operating non-power reactors, the bulk of those being relatively small reactors used in conjunction with university programs. There are a number of larger reactors, for example, at the NIST facility, has a large reactor, as well as I guess it's the university -- I'm going to get this wrong, it's one at the University of Missouri. I can't remember if it's Rollo or Columbia. I always --

MR. CRITES: It's Columbia.

MR. MIRAGLIA: It is Columbia. So there are non-power reactors out there, but there are processes in place. There is experience in place that we have used in terms of decommissioning of those types of reactors.

I think we appreciate your comment in terms of the potential combination or reexamination of more fully developing it.

MR. CAMERON: Yes. I think that's a constructive comment.

Now you pointed out there were three options I think from the non-reactor area that might be relevant here. I wondered if we could -- could we just put those on the record? I mean you said three, five and two?

MR. CRITES: Two, three, and five.

MR. CAMERON: Two, three, and five.

Tim Johnson, who was the author of that paper, Tim, could you just basically state what those options are, just so that we can have those on the transcript? I am putting you on the spot here. I don't know if you remember two, three and five off hand.

MR. JOHNSON: Tim Johnson. I believe number two was to change the decommissioning criteria. What was proposed was to use an overall dose objective of I think 500 millirem per year, which was consistent with the way 10 CFR 61 for low-level waste disposal was developed for the waste classification system.

I believe option number three was to change the decommissioning review process where in effect we would allow a licensee to undertake decommissioning

without approval of a decommissioning plan.

I am afraid -- you know, I don't remember what five was.

MS. MCBURNEY: Under number nine, option two was to change the decommissioning review process to a performance oriented decommissioning review process that would simply provide the residual contamination goals for decommissioning, and allow the licensee to proceed with decommissioning without obtaining approval of a decommissioning plan.

Option three is to change the residual contamination criteria and review scenarios by allowing hypothetical intruder doses up to 500 millirem per year.

Option five was to regulate source material consistently with naturally occurring and accelerator produced radioactive material.

MR. CAMERON: Okay. Thank you, Tim. Thank you, Ruth. I just wanted to get those on, not only on the record, but to give people an idea of different types of approaches that might be used.

MR. MIRAGLIA: With respect to two of those issues, I think they are covered broadly in terms of the site release criteria. We refer to the on-going activities in the material area. That those things will move in conjunction with one another. So I think there's

that kind of relationship, the site release criteria.

The other issue, in terms of proceeding without a decommissioning plan, what is needed with respect to decommissioning plans and the timing of plans is addressed in the most recent rule making that I just said went into effect in I believe it was August was the effective date. I don't recall the exact date in August. That's addressed. The Commission has looked at reactor decommissioning and the process and plan and those kinds of things. So there is that overlap. But those considerations have been completed in terms of reactor decommissioning. So if that's helpful to the group, I just wanted to make those points.

MR. CAMERON: Okay. Thank you, Frank. I think perhaps the suggestion is is that we do look to other types of approaches for the power reactor area also. They may not fit, but it may give us some food for thought.

Along those lines, any other suggestions for other approaches or approaches other than those that have been considered? Janice.

MS. STEVENS: Yes. Janice Stevens, an independent consultant right now.

But since we are talking about other approaches, I have had the opportunity to tour a number of

facilities that have been decommissioned throughout Europe, and actually sit down and talk to people that develop the decommissioning plans, as well as being a business developer and selling decommissioning ideas to folks, to utilities here in the States, I realize that decommissioning possibly represents the area of largest uncertainty in the whole deregulation process in terms of cost impacts.

I think that we can certainly learn a lot from the experience throughout Europe, where they have some 40 or 50 years sometimes of data that they have entered and factored into their decommissioning plans for more a realistic approach to estimating costs which are going to be born by the utilities whenever the other shoe drops on deregulation.

So I think that this area is extremely critical from a cost impact standpoint and otherwise. I just think that we could learn a lot. I know the NRC is looking internationally on this point, but I think there's a lot more to be learned. Thank you.

MR. CAMERON: Thank you, Janice. That's very useful. A useful suggestion. How about this whole issue of the potential effects of deregulation on the capability of the utility to provide the financial assurance for decommissioning. Do we have some thoughts on that? Jane.

MS. FLEMING: Surprisingly, I hate public speaking. I would rather hide in the back and have to do it.

Some of the concerns I have on the whole issue of decommissioning, and I am familiar with the advanced rule making on the decommissioning funds and what's going on there. Instead of the other half of that question that I had originally there is, I have to go back, and I'm sorry, I have to make things very simple. Some day I will develop a slick way of saying things, but I haven't done that one yet. So you have to bear with me while I do it very simply.

In the whole deregulation process, there seems to be a trend, rumors, pushed toward licenses will be transferred from a current utility to generator, et cetera, et cetera. There's all sorts of scenarios I have heard about out there.

My concern in that was one would be, originally would the decommission funds follow the facility? The second half of that question is, realizing the NRC is working on that process, is the operating cost to care for the spent fuel?

I know now that NEI and the industry has taken DOE to court to start dealing with that problem. My concern is, if a license has been transferred from a

current utility to a generator, will the operating cost, the ratepayers' money they have already put into that pot that DOE is holding?

If the scenario comes true that DOE will be handing checks back to the utilities for those operating costs, parts of the operating costs money they have collected for handling spent fuel, will that money stay with the spent fuel or if -- and I'm going to pick on the one I know and love the best, if Boston Edison transfers their license to a generator to say, Yankee Atomic, will the money go back to Boston Edison? Will they be forced to turn that money over to Yankee Atomic, or will Boston Edison be able to keep the windfall and say to Yankee Atomic, you've got the license, we've got the money, good luck.

One last thing I will throw in there. With decommissioning, a whole other topic, my favorite topic, with the decommissioning, with the problem with spent fuel being kept on site now either in spent fuels or in cask storage, I do feel there's a definite need to up emergency planning from what was planned a skeletal planning, to full fledged planning, because there is still a threat to public health and safety.

MR. CAMERON: Okay, thanks, Jane. People have a lot of questions about these issues such as that. I

think that we should try to provide some answers to them, but also let's continue to think strategically. In other words, the focus is strategic assessment, strategic planning, and how does all of this, what implications do these types of questions have for what the Commission might be doing in the future in terms of strategic planning. Frank?

MR. MIRAGLIA: Ms. Fleming referenced the advanced notice to the rule making. There are specific issues in terms of the decommissioning and funding assurance. There's a broad range of issues in terms of impact of how the timing and extent of deregulation, how stranded costs will, and how are they going to -- what will PUCs do to certify utilities under their jurisdiction. What can the NRC do to make sure that the decommissioning [illegible] are in tact.

So [illegible] issues and questions are out there to be considered. The specifics as to what comes back from the waste fund, that's kind of an evolving kind of issue. I'm not sure that I am well versed enough to talk about that. But the agency has an action plan in terms of economic deregulation.

We are concerned about license transfers. We are examining the license process regarding transfers of ownership, and what does that mean in terms of not only

the decommissioning funding, but for the maintenance of -- to assure that the financial viability for the operation that has, that's left in place, that we could look under our regulations under 50.80. Do those processes need to be modified, changed or guidance given because of these new economic and financial arrangements that might result from change.

MR. CAMERON: And Jane, perhaps we might have you talk with Frank and possibly Larry Chandler about some of the specifics of those questions when we're off-line.

Does everybody agree with the assumption that the NRC should take some action to address decommissioning funding costs in terms of the utility deregulation? Is it necessary for the NRC to take action on this issue? There are some people shaking their heads.

MR. CHANDLER: Larry Chandler, NRC. Just let me add something to the equation, because part of the deregulation issue or in parallel with it is an associated issue. That is, I don't want to say frequency in too strong a way, but the increase we've seen in bankruptcies of utilities and the implications associated with that for decommissioning funding assurance. There have been a couple of bankruptcies, several bankruptcies actually, over the last several years that we have had to deal with and look at the issues. So if that engenders any further

consideration, certainly that will be appreciated also in connection with this DSI.

MR. CAMERON: Thanks, Larry. Further comments on that specific issue of deregulation? Go ahead, Janice.

MS. STEVENS: Just one additional comment. Maybe not having the focus so much on the cost of it as looking at the innovative approaches that are being used again, mainly internationally, with a technical approach that might be the best use of NRC resources to look at that area instead of strictly dwelling on the cost estimates.

MR. CAMERON: Thank you. Good analogies from the international area is the suggestion.

I think we in terms of going back to the options themselves, I think that Tom Tipton's remark during the last session about the perhaps snail-like pace of the radiological criteria. Rulemaking might argue for some to support option two. I guess option two, is that the accelerated option?

MR. MIRAGLIA: You know look at ways of accelerating that. I think that matter is in terms of the radiological criteria we're paralleling in terms of materials decommissioning, reactive decommissioning. It is in the participatory rulemaking. Decisions there are going to impact both materials as well as the reactor.

MR. CAMERON: Okay. Well, how about some comment on the fast, slow, stay the course, those options. Is there any need for comment there?

MR. MIRAGLIA: I think within the context, there are a number of rulemakings underway at various stages, and is there a need to proceed faster and slower on any individual ones. Those kinds of comments would be useful.

I think you are right. There has been the sense that that particular one is of high interest.

MR. NELSON: Alan Nelson, NEI. We have been involved with a number of the decommissioning activities over the last couple of years. I need to applaud the NRC staff for developing or probably maturing the licensing process as we see it in 50.82. There are a number of areas that still need to go back and take a look in that area, but it has matured on the lessons learned of those that have prematurely shut down.

But I wanted to address the options one and two. Some of those probably, as you look at them, need to go into option two into a more aggressive or forward-looking approach. As you mentioned, the decommissioning cost estimates have been looked at again and again in rule 50.75, where it recognizes how much a utility would need to provide as a minimum amount. Each year a licensee

looks at 50.75 and the contributions that they are making and the NRC puts out NUREG 1307, I believe, which identifies you know, the low level waste cost that we're evaluating that falls into the formula.

There was a proactive role of the staff more aggressively looking at those numbers. At one point in time, there was a proposed rule. This may be what you are alluding to, as to site specific estimates. This is what necessarily affects the operating plants. My understanding that that proposed rule has been somewhat tabled.

What I would like to recommend is that a more aggressive approach be taken on the site-specific rule. I understand it was tabled so that we could learn more from those plants that are currently being decommissioned.

Essentially, the PWR model plant is the trojan plant. We could be looking at anywhere, you know, maybe from five to eight, ten years down the line until we truly find out what the decommissioning costs would be.

But in the meantime, in light of deregulation, in light of cost effective approaches, we believe that a site specific part of the rule should be built into it, and a more aggressive action ought to be taken at least in that element, to allow that to occur.

Any thoughts on that? That ought to be, you

know, staff ought to proceed with that aggressively so that the operating plants can sufficiently fund these decommissioning funding activities. That will affect, you know, decision making, business decisions that are made in this regard. Thank you.

MR. CAMERON: Thank you very much, Alan. I would ask Frank or someone else from the staff to just for the benefit of the rest of the audience, could you just briefly describe what the site-specific rule is, what it would do and what the status is.

MR. MIRAGLIA: The -- it was summarized correctly that staff was working on such a cost. The concern was is because of the changes in the economic climate and deregulation, we ought to look at those things in some kind of concert, and have an idea of what's happening in terms of economic deregulation. What impact that might have. So it was tabled for those kinds of reasons.

The status of each of these rule makings and initiatives is summarized within the context of the issue paper. The suggestion that I made just before that comment, and that was a response to that comment, are there specific issues that perhaps need to have some attention. That kind of comment would be useful in the context of developing this issue paper and the views of

the stakeholders in saying well, maybe we don't need everything accelerated, but there's needs for this piece versus that piece, and the reasons why, and to have that kind of information for consideration would be very useful. We appreciate the comment.

MR. CAMERON: Okay. Good. Thank you.

Other comments along those lines? How about the specific questions the Commission asks? For example, transfer of nuclear power plants to agreement state control after fuel has been put into dry storage or has been removed from the part 50 site. I think that this is a good question that we might get some agreement state comment on, as well as others.

MR. HILL: Tom Hill, Georgia Department of Natural Resources, Radioactive Materials Program.

It's exactly that particular point that I wanted to address. The Commission said that should consider new and innovative regulatory approaches and included the transfer there. I guess my comment in short is, been there and done that. Let's don't go back.

(Laughter.)

MR. HILL: Another idea comes to mind, unfunded mandate, you know is a possibility. There was the site in Georgia, AEC licensed in the 1950s, as I recall, and decommissioned in the late 1960s and turned

over to the state in 1970, a Lockheed facility. So I think that's appropriate. We've been there. Let's don't go back.

MR. CAMERON: So you don't think it's a good idea I guess.

MR. HILL: I don't think it's a good idea.

MR. CAMERON: All right. Steve, do you want to add to that?

MR. COLLINS: Yes, if the NRC should go forward with the suggested transfer of the nuclear power plants to agreement state control after removal of the fuel, if that should ever happen, the very first step should be that you will start holding topical workshops and meetings with the agreement states to consider this. We will discuss the many technical, legal, and regulatory issues that would arise as a result of that, whether it's unfunded mandates or what happened to all those low level waste fees you collected all those years. Do we get those to go with the task, several little questions like that that might come up.

So don't make this decision in a vacuum.

MR. CAMERON: No. I don't think that we would, hopefully. Go ahead, Frank.

MR. MIRAGLIA: I think with respect to many of the decisions that have come out of the strategic planning

initiative, would be -- it would be a need for further implementation, further rule makings. All of those would have to go through the full processes that would be done. So a decision is not going to be made in the dead of night.

I believe I could say this, clearly for not only this decision, but for the rest, that those decisions will be made and shared. Then the implementation plans for each of those decisions would have to follow normal agency processes in terms of the stakeholder interests. So there would be other opportunities, many other opportunities to provide user comments on that.

I think that there would be a Commission invitation for this meeting, indicated not only those four focus questions, in that for each of the or several of the issue papers, they have raised some thoughts and ideas to provoke comment. So if you have specific comments on these, that is what we are looking for, and we certainly appreciate your views.

MR. COLLINS: Well, if Chip presents a question that way in Chicago, he will get a lot of response.

MR. MIRAGLIA: I think you've been warned.

MR. CAMERON: Well, in the face of not having discussion, I would rather present it that way than resort

to what's the capital of Minnesota, things like that.

MR. COLLINS: And I agree it needs to be. That's appropriate.

MR. CAMERON: I think that this interchange emphasizes a point that's an important point, and Frank just made it. Is that particularly in light of some of the comments that we got on the public involvement process of strategic assessment, is that many of these decisions, although a strategic plan will be developed out of this process, there will be if there's specific regulatory decisions that flow out of that, they will be the subject of the usual public involvement process, or the range of public involvement techniques that we use.

Steve, did you have some further comments?

MR. COLLINS: Yes. When you get to just general comments on the whole DSI as opposed to your specific question.

MR. CAMERON: Great, that's good. Terrific.

MR. COLLINS: Steve Collins, private citizen. There's no technical basis for the selection of 15 millirem per year as a decommissioning standard. With this in mind, I support the concept of revisiting the approach of setting residential contamination criteria and reduce in areas independently of the EPA.

With respect to the single issue of

radiological criteria for decommissioning, I recommend the NRC select option three. That is, the NRC staff would move slowly in implementing its current rule making approaches.

Given that the NRC's approach to this issue is heavily influenced by its apparent need for agreement with the EPA, and given that the Commission needs to fully consider the options for DSI 9, it is premature to move forward with the current rule making.

I have some specific comments with this DSI. The first one enforces the first comment made. On page 10, paragraph six, the NRC is correct to point out that there has been some major controversy involving both the EPA and NRC rule making on the issue of radiological criteria for decommissioning.

The statement is made that details of this issue are addressed in DSI 3. However, DSI 3 refers the reader to DSI 12. DSI 12 deals mostly with probabilistic risk assessment issues, but does briefly mention that dual regulation between NRC and EPA is a problem.

DSI 12, page 25, indicates that radiological criteria for decommissioning is a related issue that will be addressed after the Commission has made decisions on the major issues in DSI 12.

Following this path through the DSIs, the

reader is left to conclude that the NRC has no immediate recommendation to the Commission on this issue. Nor is it clear that the NRC is soliciting comments on this issue at this time.

However, the general issue of decommissioning is addressed in greater detail and with much greater imagination in DSI 9. Option three of DSI 9 appears to have some good ideas which are worthwhile for the NRC to explore. Although when we get to DSI 9, you will find we are not recommending option three, or I'm not.

On page 14, paragraph six, with respect to the single issue of radiological criteria for decommissioning, once again we recommend or I recommend that the NRC select option three and move slowly, more slowly in implementing its current rule making approach.

Certainly if you decide that you are going to transfer nuclear power plants after the fuel is removed to agreement states, then get into discussions early with that process before the decision is actually made.

MR. CAMERON: Thank you, private citizen, for those comments. It's good to know that people have plowed through some of the connections or disconnections perhaps between some of the papers.

But how about other comments on the let's go slow on the radiological decommissioning, radiological

criteria for decommissioning?

Okay. Anybody want to address the other two questions up here? Resident site inspector during all phases of decommissioning. Is that a controversial issue?

Okay. How about -- I'm not sure what this means, this third bullet. Frank, maybe you could explain that, at least for my benefit, if you wouldn't mind.

MR. MIRAGLIA: In terms of decommissioning of sites, reactor sites, I believe it's true of material sites, is that the facility and the licensee does its decommissioning surveys. Then there's independent follow-up inspections. It has a very prescriptive type of process and that kind of thing. So it's saying there's some flexibility where we would look at those processes and make a more performance oriented as opposed to the prescriptive kind of thing. It's sort of a specific in terms of performance based, risk based, risk informed kinds of --

MR. CAMERON: Okay, and Tim, is that something that is also reflected in the non-reactor decommissioning paper, this sort of an idea?

MR. JOHNSON: Tim Johnson. I don't think that's explicitly envisioned in the materials decommissioning paper. I think the option where we were suggesting the possibility of doing without the

decommissioning plan review would still require the licensee to do final surveys, to demonstrate that they met the criteria, and would still envision us doing confirmatory surveys. So this is a little bit different than what we had envisioned.

MR. CAMERON: Okay. Thank you. Steve?

MR. COLLINS: Steve Collins, private citizen.

With regard to that last item that you brought up, it would appear to me to be very worthwhile considerations for reactors particularly, for the NRC to let a current licensee stay within the part 20 dose recommendations for workers, and let them do a clean up or decommissioning costs assessed any way they wanted to, without having to spend two years of developing plans and things on how to do it. Just let them do it, keeping dose to their workers low. Then at the confirmatory survey stage or just before they ask the regulator to do the confirmatory survey, to see how well they did.

Now our experience in decommissioning is is that may end up costing more in the long run on certain specific cases. But for something that's like a nuclear reactor, probably not. If you are talking about soil and dirt and groundwater moving through it and carrying materials, you can end up spending a lot more. But for a facility it may be cheaper just to go in and do it than to

do all the planning and engineering which are required for it.

MR. CAMERON: So you would support the general concept behind that last question?

MR. COLLINS: I would support the utility industry as a whole looking at that thoroughly as a generic type approach to maybe doing it, and doing it once as opposed to every plant site having to go through an extremely detailed decommissioning planning process.

MR. CAMERON: Okay. Thank you. What about this idea of a generic approach such as Steve suggested? Anybody from the licensee community, would they like to comment on that particular point? Yes, Henry.

MR. MORTON: Henry Morton, a technical consultant. I think that the significant issue here with respect to this is that it is the end point that is what the licensee walks away from, what is satisfied in the final survey. That is, the really significant part of it. It is not so important or mandatory I think for the agency to go through the process of the review and approval of the plan. The licensee will need to do the engineering and the decisions on how to do that to protect public health and safety in the process, and to satisfy the qualities of the environmental protection, worker protection.

But the methodology of having to do it, I think is not so significant as the endpoint, and that the agency should really be focusing more on the endpoint than on the process, more of the performance endpoint.

MR. CAMERON: So I guess you would also support the general concept behind this performance based approach?

MR. MORTON: In general I would, yes.

MR. CAMERON: Okay. Thank you, Henry. This particular paper was framed in terms of the timeliness of how we complete action on some substantive areas. So I would hope that all of you who have been commenting on some of these substantive aspects would join us this afternoon for the discussion of the non-reactor decommissioning paper, because I think that will be very relevant.

I think we have to move on to the risk informed performance based approach. So why don't we do that at this point. I believe Tom Hiltz is going to do the presentation? Good.

MR. HILTZ: Thank you, Chip. Good morning, everyone.

As Frank alluded to in his discussion of direction setting issue on oversight of operating reactors, the concept of using risk and risk insights to

improve our regulatory process is not a new one. In fact, if one were to try to draw a timeline which listed or depicted significant milestones with considering risk to improve our process, you would probably have to start that timeline somewhere in the 1970s.

Along that timeline, you would see several significant milestones. Perhaps some of the more significant ones occurred in 1986 with the issuance of the Commission's safety goal policy statement for nuclear power operations. Another one could be associated with the completion of the individual plant examinations in the early 1990s.

The most recent one, the issuance of the Commission's final policy statement on the use of PRA in regulatory activities. Along with that document also was a companion document, the PRA implementation plan, which describes and monitors and tracks the progress of risk informed activities throughout the agency.

The phrasing of the DSI contains the words expanding the scope. I think the words expanding the scope are reflective of the continued agency emphasis to use risk insights where appropriate to enhance our safety decision making, to reduce unnecessary burden, and to improve staff efficiency.

One of the key elements or one of the four

elements of the PRA policy statement, the first element said that PRA should be used in all regulatory activities to the extent supported by the state of the art methods and data, in a matter that complements our deterministic approaches and supports our traditional defense in depth.

One of the key words in that statement is the word all. The discussion of this direction setting issue is discussed with that word all or that phrase all regulatory matters in mind. It's meant to provide an umbrella type approach for how we consider how fast and how far the agency moves in implementing risk informed performance based approaches.

We also recognize that there are differences in the regulations and the regulatory approaches for materials and reactors. Although we try to draw some distinctions in the paper and recognize that the how far is probably going to be an implementation issue of the overall strategic policy, and how far we go and what areas are more amenable to risk-informed performance based approaches will be identified during that implementation.

In the discussion of the paper, you also find sections which discuss definitions or discussions, I wouldn't call them definitions, of risk-informed performance based regulation, performance based regulation, deterministic, and a general discussion of

risk informed. Those were added to help provide some clarity and context for understanding the direction the Commission may decide on the strategic issue.

Also, there's a discussion about regulatory coherence. That emphasizes the Commission's desire to ensure that when we proceed towards more risk informed performance based approaches, we do so in a coherent manner.

Next slide, please. It is fair to say that the NRC is not the only organization that's interested in risk-informed performance based approaches. There has been intense interest on the executive branch and congressional level. In this recent Congress, there was a government reform bill contained in the Risk Assessment and Communications Act which passed the House, but did not make it out of final resolution in this Congress.

Congress has also amended or in their recent amendment to the Clean Air Act, established a commission for a risk assessment in management as an advisor to the Environmental Protection Agency. They have completed a draft report which surveyed some regulatory and government agencies to determine how they are using risk for risk management, and to improve their processes.

As we move forward, standards settings organizations are also going to play a key role.

Organizations such as the International Commission on Radiological Protection, National Council on Radiation Protection, some of the code consensus organizations involved in reactor applications for in-service testing and in-service inspection are becoming involved or likely to become involved in some of the risk informed performance based approaches.

Other Federal agencies, in particular, the EPA, is going to influence how fast and how far we proceed. There is ongoing efforts under risk harmonization between the Environmental Protection Agency and the NRC to try to understand and work more closely together in those areas of dual regulation.

The Commission has specifically asked for stakeholder comments on the issue of how risk informed performance based may help us resolve some of the issues or better approaches to duel regulation.

Industry, both in the materials and the reactor world, is going to play a role. There are several reactor initiatives ongoing under the PRA implementation plan which are a result in large part of industry initiatives. Those include pilot applications for a great equality assurance for in-service testing, in-service inspection, and some of the changes for risk informed tech specs.

Some of the initiatives are not as prevalent in the implementation plan or in the materials world. I think I'll talk a little bit more about the impetus behind some of the activities that are ongoing in the agency as we get in the next couple of slides.

Internally, we are recently completing or in the process of finalizing a business process re-engineering or re-design effort in the nuclear materials effort. I think certainly we want to be sensitive to any duplicative efforts as we attempt to incorporate risk-informed performance based approaches in the nuclear materials area.

As I mentioned earlier, the Commission's PRA policy statement. It is important to note, I think, that performance based is not explicitly mentioned in the policy statement. While we have some experience in some larger framework to deal with risk informed along that timeline, performance based is a concept I think that we're going to have to approach deliberately. We have received some white papers from the industry. We have implemented the Maintenance Rule, which is a performance oriented, performance based approach. We are continuing to identify policy issues and legal issues that may be associated with our movement towards more risk-informed performance based regulation.

As recently as last week, the staff met with the Commission to brief them on four emerging policy issues that dealt with the increased use of risk in the pilot applications.

Next slide, please. There were several subsumed issues that are talked about in the paper before we get to the options. Most of those subsumed issues, as Chip had alluded to, really emphasize the nature of risk informed performance-based regulation. That it's not limited to a reactor regulation. It will suffuse all areas of our regulatory -- potentially suffuse all areas of our regulatory environment and regulatory approaches.

If you have an opportunity to read the six issues, you will see that five of the six issues deal with materials initiatives, indeed will be resolved in the context of the final decision that the Commission makes with regard to this.

We proposed four options to address the strategic issue. The first option was to continue the current process that we have captured under the PRA policy statement and implemented under the PRA implementation program. The current process is receptive to industry initiatives. It also contains NRC initiatives to improve its oversight processes in the area of inspection, regulatory effectiveness. A more recent addition is going

to determine the appropriate follow-up actions for some of the IPE insights that we gained after reviewing the IPE insight reports.

* The second option is an option which would, if chosen, would provide a much more narrow focus for and a higher threshold for pursuing risk informed, performance based approaches. What that option might require is that the staff develop some type of methodology to review proposed approaches to determine whether it's really going to improve public health and safety, and its level or resources and amount of effort and priority would be established based on the results of that assessment.

The third option is the most aggressive of the four options. If implemented as it is discussed in the paper, it would require a comprehensive assessment of all our regulatory processes both in the materials and the reactor areas and other areas of our regulatory processes, and determine where risk informed performance based approaches may be amenable, and once those are determined, to establish some more aggressive process for pursuing those enhancements.

It clearly of the options would be the most resource intensive option and, once again, require a great deal of initiative and effort.

It is the one with the broader focus though,

and if you characterize it in how fast and how far, this option goes the fastest and the farthest of any of the options.

And the fourth option that was discussed would also provide a more narrow focus. It said consider risk informed performance based approaches primarily in response to industry, stakeholder, public demand and initiatives, and that would essentially not only provide a much more narrow focus, but may make the NRC less able to deal with emerging technology and issues that it may face, consistent with some of the increase in technology and risk, if we just limit ourselves to those things that are brought before us by stakeholders.

The next slide, please.

In the Commission's preliminary view on this direction setting issue, the Commission re-emphasized some of the concepts and goals of the policy statement in that higher risk activity should be the primary focus of the agency efforts and resources.

The Commission also supported aspects of Option 1 and Option 3. Option 1 would be continue the current process, but continue to look for ways where performance data can enhance the process and could be used to improve the process.

It also said although the preliminary view

didn't endorse a comprehensive review of our regulatory processes, it did encourage us and direct us to proceed to a more aggressive posture towards enhancing the PRA implementation plan where it seems to be appropriate.

The staff also, under this preliminary decision, would develop a framework paper for proceedings towards risk informed and performance based approaches in the materials area.

We currently have a framework document in the reactor area. That's SECY-95-280. There isn't a similar document like that in the nuclear materials area, and I suspect that if this is implemented that many of the subsumed issues would be dealt with in the framework document for incorporating risk into many of the nuclear materials usage.

And, finally, the Commission was particularly interested, as I had mentioned before, in trying to garner comments on how the NRC should deal with dual regulations, some of the concerns with dual regulation, and whether a risk informed, performance based philosophy would help resolve or improve those processes.

And that concludes my presentation.

MR. CAMERON: Thank you very much, Tom.

Before we go to discussion, I just would like to introduce Themis Speis, who's the Deputy Director of

our Office of Nuclear Regulatory Research, who's been instrumental in this paper and is up here with us.

Why don't we go right out to you? Who would like to make the first comment on this particular issue paper?

Yes.

MR. HINNANT: I'm Scottie Hinnant with Carolina Power and Light.

This is one of the issues I think there's most confusion both in the industry and the NRC and public about what is the real use of PRA going to be relative to compliance. We talk compliance to every detail of regulation requirement irregardless of the safety significance, the cost, or the benefit, on the one hand, and then we talk about risk informed regulation, on the other, and quite honestly, I think there's an awful lot of confusion, and I don't see an initiative here that really focuses on trying to resolve that confusion.

We need to either decide PRAs are going to be used or they aren't going to be used, and until that case, I guess the industry has spent an awful lot of money developing PRA models and results, and I sense a reluctance to pour a lot more money into refining those models for even better results until there's some idea of what and how they're going to be used.

So I really think this is an important area for the Commission to come to grips with, just whether or not PRAs are going to be used, and if so, how.

MR. CAMERON: Okay. Thank you.

And before -- Tom, you might want to address that, but I think that part of the confusion also stems from the fact that this whole concept of risk informed performance based is broader than just the use of PRAs, isn't it?

MR. HILTZ: I think it is, Chip.

The Commission in its policy statement, I think, clearly articulated its desire to increase the use of PRA. So hopefully that is pretty clear in the policy statement.

How we do that -- or in the issue paper -- how we do that and how risk can be applied within the regulatory framework, I think, is an area of concern that we're working on. We have developed a framework document. There are several pilot applications that are currently in progress, and we anticipate that there'll be draft reg. guides and standard review plans for the four pilots that I mentioned: tech. specs., risk informed tech. specs., in-service inspection, in-service testing, and graded quality assurance, within the next six months. Several of those are scheduled by the end of December.

So we do recognize, I think, that that is an important consideration to effectively communicate how risk is appropriately used in the regulatory process and in the decision-making that utilities and other licensees use.

MR. CAMERON: Okay. Thank you, Tom.

Further comments on risk informed performance based?

Jim.

MR. RICCIO: Jim Riccio, public citizen.

Thanks, Jim.

MR. CAMERON: Would you repeat that, please?

MR. RICCIO: It's Jim Riccio, public citizen.

Basically, we just hope the Agency doesn't go too far too fast. There have been comments made in the ACRS basically that there isn't enough history in this industry to support a too broadly based performance based approach. Even in NRC's own documents, we have found instances where we think possibly the pendulum has shifted too far to trying to save the industry money and has really lost perspective on the public health and safety.

There have been -- for instance, in your elimination of requirements marginal to safety, you had regulations that in the NRC's reg. review were considered significant to safety. So there seems to be, you know,

more of an approach to save this industry money, and we understand that some of this regulation may be perceived as being onerous and burdensome, but I think that you must basically reassess the effects on public health and safety.

We think there have been some good uses of PRA, for instance, with reactor shutdown, for instance. Some of the PRA insights there basically clued the Agency into the risks that were attendant when the reactor was shut down.

Unfortunately, when you're issuing documents that are telling the public how much you're saving the industry in dollars, it kind of shifts their perspective from one of, you know, the Agency is there to protect the public health and safety rather than the financial interests of this industry.

MR. CAMERON: Thank you, Jim. That was an interesting point about public perception, I think.

Tom, do you have any comment on that before I ask people out here if there's responses?

MR. HILTZ: Well, one of the external factors that maybe I didn't touch on in sufficient detail dealt with the public, and I think that the strategic issue paper recognizes that we need to be deliberate and thoughtful with how we proceed toward risk informed and

performance based regulation.

To maintain public confidence, we have to make efforts to make sure that it's communicated and understood because if we don't do it, then there's certainly the potential that by proceeding in that path we may erode public confidence, which is something that we don't want to do.

MR. CAMERON: And do we have any observations from any of you in the audience about Mr. Riccio's cautionary not about how far, how fast that we proceed with this?

Tony.

MR. THOMPSON: My name's Tony Thompson on behalf of the uranium producers.

We have standards that require us to stabilize mill tailings piles for 200 to 1,000 years. So you're into probabilities in terms of engineering judgments about catastrophic events and other things. For example, there have been some concerns associated with seismicity, and east to the Rocky Mountains, the uncertainties involved in assessing seismic potential darn near require that you use probabilistic type of analysis.

And I think that there are going to be other materials types of situations where some of the fuel cycle facilities that may be looking at some sort of on-site

disposal. The use of the probabilistic analysis to define the uncertainties and to allow optimization of the final intervention makes great sense, and so I think that's one place that the Agency ought to definitely look at the use of probabilistic type performance based, regulatory overviews.

Site closure and waste disposal are going to be areas where that is almost -- it's the only way it's going to make any sense in some cases, to economically close down some of these complex sites.

MR. CAMERON: Thank you, Tony.

Additional comments? Yes, Henry.

MR. MORTON: I think one comment relevant to probabilistic approach and the risk based approaches is that it should, indeed, help us to better understand what the risks are, how to manage them better, and thus, in the end, it really should be viewed, I think, as a very positive approach because the outcome should be better public health and safety protection, better production of the environment, better use of the resources that we have to optimize that protection.

I think that when we look at this risk based, performance oriented approach, we should, indeed, consider a couple of things. The probabilistic approach, one, should help with optimizing these choices and

understanding where the risks are better, and so I think those, as opposed to the deterministic approaches that we followed particularly in the materials licensing side of the house, should be encouraged and should be approached in an incremental fashion by the licensees and by the Agency so that we understand the steps that we're taking and that we take them in a responsible incremental fashion.

One of the things, I think, when we begin to or another thing when we begin to focus on at least overtly the word "risk based," is to understand that we've really prudently been setting standards and adopting limits on the basis of a risk oriented background through the use of standards setting, agency recommendations, such as NCRP, ICRP, risk estimated doses through agencies or organizations such as NCRP, National Academy of Sciences BIER Committee, and so on.

One of the things, I think, if the focus toward risk based is sharpened somewhat, then one of the things that NRC research will need to or should focus additionally on is the question of the linear no threshold versus threshold, and I think some more attention will need to be applied there.

We've prudently applied an assumption of linear no threshold at these very low doses that are

particularly now being proposed for decommissioning, and it looks like epidemiology maybe has exhausted about as much as it's going to be able to tell us and that increased attention to radiobiology to look at DNA repair, other fundamental radiobiology mechanisms that may help to answer the question of linear no threshold versus threshold will be needed if you put additional emphasis on the idea of risk based regulation.

MR. CAMERON: Thanks for identifying that connection, Henry.

Do we have some --

MR. THOMPSON: Can I just --

MR. CAMERON: Oh, yes, go ahead, Tony.

MR. THOMPSON: Tony Thompson again.

I just want to follow up with what Henry said. If you look at the Commission's current proposed rule for decommissioning and decontamination 15 millirem per year limit proposed for 1,000 years, it's hard to say that's a risk based proposal under almost any circumstances.

So it gets back perhaps to the linear non-threshold question that Henry raised, and it certainly gets into this whole question of risk based and then for 1,000 years you're into the probability issue again.

MR. CAMERON: Good point.

Tom, any comment on either of those two at

this point?

MR. HILTZ: I'm not an expert in some of the issues that they're talking about. I suspect that those will be fleshed out and discussed in the implementation of a framework for dealing with materials usage.

MR. CAMERON: Good, good, and I have some questions for you, and I'm sure the audience, about the framework in a minute, but, Ruth, I think you wanted to make a --

MS. McBURNEY: Ruth McBurney, Conference of Radiation Control Program Directors.

Just a follow-on to the discussion that we've been having on this. As a performance goal, those limit standards have worked fairly well, sufferingly only from a lack of understanding by the public of the meaning of dose limits, and in a transition to a risk informed, performance based approach, risk information should begin with an explanation t. the public that the dose limits have always included safety margins that keep risk as low as reasonably achievable.

It may be that the real incentive for using a risk based approach is an attempt to put exposure does information in a form that can be more readily understood by the public.

The changes to this approach should be

accompanied by an aggressive public education program as we talked about yesterday.

This regulatory approach would necessarily be based on probabilistic calculations, as has been mentioned this morning. Such calculations are usually accompanied by uncertainty analysis.

Problems can arise in uncertainty analysis when choosing input distributions which may, under very low probability circumstances, cause the output distributions to include the dose limit.

So when we're talking about very, very low, for example, decommissioning standards, it would be better to use as much site or process specific information as possible in a deterministic bounding calculation to show that compliance performance is achievable.

MR. CAMERON: Okay. Thank you, Ruth.

Do we have any comment on any of Ruth's statements?

Lynne.

MS. FAIROBENT: Lynne Fairobent.

Chip, not directly on Ruth's statements, but it's something that bothers me on this issue paper, and that is I wonder how easy the public can understand what this paper is even talking about.

I take a look at this paper, and many of us in

this room have been involved in PRAs for too many years to truly acknowledge, but I take a look, and I think the Commission did an admirable attempt at trying to define some of this terminology, but let me just read you something, and you tell me if you think you were successful.

(Laughter.)

MR. CAMERON: We like this.

(Laughter.)

MS. FAIROBENT: And this gets back earlier to something that Ms. Fleming had commented on about using simple language in order to address some of these issues.

This is under the what I would call is, I think, the definition on deterministic based. It's on page 16. It says, "Deterministic approaches to regulation consider a set of challenges to safety and specify how those challenges should be mitigated."

Okay. Then it goes on to say, "Simply stated, the deterministic approach establishes requirements for use of nuclear materials and for engineering margin and quality assurance and design, manufacture, construction, and operation of nuclear facilities."

I'm sorry, guys, but I don't think that cuts it. I mean, I looked through this whole paper, and the majority of the words in this paper are four and five

syllables long, and I don't mean to imply that I think our public is not educated. I think the problem is that the public at large is very educated, but we continue to use terminology in this field, in particular in risk, that I'm not even sure a lot of us in the field truly understand what is meant from one application to the next on the use.

And I guess I would simply like to urge you go back and you rethink a redrafting of this to use very simple terminology and define maybe through an example what is meant by these differences because I don't think the public can understand this paper.

MR. CAMERON: Thank you, Lynne.

And that sort of plays into a question that I had about the process. At one point in the paper the statement is made that the public will likely play a substantial role in the transition to risk informed, performance based regulation. In order to maintain public confidence, the basis for and implications associated with risk informed, performance based regulatory approaches should be well defined and easily understood.

And that may be an example of the need for that, and we talk about developing a regulatory framework, and we have the scoping criteria back in the appendix. What process are we going to use to educate the public, inform the public, involve the public in this development

of the regulatory framework, the scoping criteria? Is there one particular mechanism that will be the focus or is it going to be -- are there going to be many different initiatives in this area?

MR. HILTZ: I can't answer the question specifically because I think as a result of some of the comments that we'll go back and look at that to make sure that we are addressing the public concerns and making sure that it's communicated in a way that's understood.

In the development of the PRA policy statement, for example, though, we developed a draft policy statement. We issued it, published it, and we conducted a public workshop on it to try to get public response to what was being proposed and try to understand the public concerns with or where there may be areas of public misunderstanding.

And we typically don't go through that process for development of Commission policy papers, but I think that we're getting the message that we certainly need to be very sensitive to that and make sure that what we do is understood and is communicated effectively to the public.

MR. CAMERON: Okay. Do we have some -- oh, go ahead, Themis.

MR. SPEIS: I would like to add something to this.

Tom mentioned earlier that we are going through a process of developing pilot applications in a number of areas, and that involves developing guidance, specifying or codifying as the technology allows the process itself, and all of this infrastructure that we are developing in the present will go out for public comments. It will be discussed with the ACRS. Maybe we should be having some other types of forums to discuss it.

So that could be a kind of vehicle where the public can participate more effectively because, as Tom said, these are very important, these pilot applications, because it will kind of -- we're feeling our way, okay, to make sure that the technology is appropriately considered. The public view is, as you heard earlier about the radiological criteria, there are different types of -- different views in this area, you know, even among some of the more erudite scientists.

So hopefully this pilot application, you know, will receive scrutiny, but hopefully will help us to insure that, you know, we include clarity, among other things.

MR. CAMERON: Thank you, Themis.

Do we have some further comments about the difficulty of understanding the presentation of these concepts or mechanisms where the public and, you know,

broadly -- I'm using "the public" broadly to include a number of interests on mechanisms for public involvement, communication on these particular issues.

(No response.)

MR. CAMERON: Okay. Any other comments on risk informed?

Ruth.

MS. McBURNEY: Ruth McBurney, CRCPD Board of Directors.

As far as the options given, we support a combination of certain aspects of all the options. Promulgation of regulation should be primarily as described in Option 1 because consideration of industry demands, safety benefit, ease of implementation, and available resources should always be considered in rulemaking.

As described in Option 2, even when considering the items mentioned in Option 1, overall protection to public health and safety should be given the highest priority.

In addition, cost-benefit of any rulemaking should also be one of the primary considerations, overridden only by protection of public health and safety, and in state rulemakings we have to do a cost-benefit analysis on every regulation that we propose.

There are aspects of Option 2, notably to pursue concurrence with EPA on risk bases and models and assumptions to be used that would be beneficial. I think this has been a problem in several areas.

Option 3, to perform a comprehensive assessment of NRC regulatory approaches is a desirable goal and would go a long way in achieving regulatory coherence and consistency.

Then as described in Option 4, the NRC should always be open to input from the stakeholders. Licensee data concerning risk analysis, cost-benefit analysis, licensing need, and the licensee's ability to maintain an acceptable level of safety with innovative approaches must always be considered.

Of course, our comments are primarily directed toward the Materials Program. I just wanted to mention that in coordination with the CRCPD, the NRC has agreed to participate in a parallel rulemaking process with the agreement states in which participatory involvement among all individual parties is emphasized. This wasn't mentioned in this paper, but as I mentioned earlier, it's primarily directed toward reactor.

Also, of course, with the states we're concerned about the cost-benefit analysis. Designating a rule of an item of compatibility may force a state to

either utilize inapplicable assumptions or not adopt an item of compatibility because an applicable cost-benefit analysis may not justify adoption of the rule in that jurisdiction.

So that's my primary comments.

MR. CAMERON: Okay. Thanks, Ruth.

One clarification. You mentioned a participatory process that the conference is pursuing. Is this in a particular substantive area or is it the application of risk informed, performance based to a particular substantive area, or is it on this general concept of how you do a framework?

MS. McBURNEY: In the adoption of any regulations whereby NRC and the agreement states both were going to have to adopt similar regulations in the materials area, that we've asked and have gotten some indication that they would be willing to work with us on that.

MR. CAMERON: Okay. Thank you.

Tony.

MR. THOMPSON: I'd just like to say one more time on behalf of the National Mining Association just discussing the complexities of this issue itself and trying to address it in some meaningful way to the Commission, never mind that there may be three or four

other DSIs that are of concern to a particular group of licensees, the time frame within which to file comments is unreasonably short because the notice was sort of fragmented in terms of getting the materials out to the public, at least as far as our people are concerned, anywhere from, you know, essentially 40 to 45 days to comment on, you know, a document that's that thick that has a lot of potential impact on the future of the NRC and their relationship.

So, once again, we think that there ought to be a little bit more time to comment if you want to get the best possible and most informative comments that you can get.

MR. CAMERON: The papers covered the waterfront of all the fundamental issues that we have to deal with, which was the point, and I guess I would just direct that comment to the NRC staff.

MR. MILHOAN: Jim Milhoan, NRC.

There is a lot of information, as you point out, in the issue papers we provided. We tried to make the broadest possible distribution.

There is a balance we're having to strike between the comment period and having those comments available so that they can influence and have a direct impact on the strategic plan that we're developing for the

Commission so that that strategic plan can be the undergirding of our process in the future for both the Agency direction and also needing it for the development of the budget for next year, for the FY '99 budget we're talking about. We're talking about budgets ahead, but we need that process done in a very short period of time so the results of that can, in fact, have an impact and have a basis for us moving forward for development of the next budget cycle, in addition to establishing the direction for the Agency in development of the strategic plan.

So there is a tradeoff in the amount of time that we provided for public comments. We attempted to make as broad a distribution as possible starting in mid-September in light of that very tight time frame, and we do understand that that is a particular problem, but we had the competing factors on the time schedule and the importance of this in setting future Agency activity. So there's a tradeoff in that regard.

MR. CAMERON: And it is true though that comments such as that will be part of the stakeholder interaction report that goes to the Commission though.

MR. MILHOAN: Yes, it will.

MR. CAMERON: Okay.

Yes.

MR. GURICAN: Good morning. Greg Gurican,

member of the public.

I don't know if that makes me a public citizen or a private citizen, but I'll --

(Laughter.)

MR. GURICAN: -- take it any way you go. I guess you guys have struck a nerve with me, so I'm going to talk.

I'd like to reiterate the comments from the gentleman of Carolina Power and Light who said there's a lot of confusion here, and I'd like to say that I would support Options 3 and 4 and go as far as you can go as fast as you can go because the slower it takes you to develop your positions and to get to the point where you're done, the more it's going to cost the industry; the more it's going to cost the public, as members of the public, as customers of utilities, and as taxpayers. So I'd like to support Option No. 3.

I want to support Option No. 3, as well, because we see the use of PRA in many areas coming about at long last, for instance, in the maintenance role. However, when you go to the statements of consideration, for instance, for the license renewal rule under Part 54, it strictly prohibits the use of PRA in that role, and that's why I think if you take a look at Option No. 3 again to do your comprehensive assessment, you'll be able

to see a better use of PRA in the future.

And even going back to the previous issue paper, if we just look at the decommissioning questions which were brought up in some of the options, what risk reduction benefit is there going to be to having a resident inspector on site for all decommissioning activities? If you use PRA in that instance, I think you're going to find that the answer is none.

Okay, and that's my comments.

MR. CAMERON: Well, good. I would thank you and thank Ruth for bringing us back to the options here, and I guess I would pose the question: would this particular option, Option No. 3, as you phrased it, this comprehensive assessment, would that be a better vehicle for achieving the type of public education and public responsiveness that we're concerned about? Would it be a more coherent process if we adopted Option No. 3?

Tom, I don't know if you have an answer to that.

MR. HILTZ: Well, I think coherence needs to be the foundation no matter what option we take, whether it's to continue the current process or perform a comprehensive assessment.

If we were to perform a comprehensive assessment, it's not necessarily linked to a more

aggressive public communication program. I think that has to be an initiative that has to be considered regardless of what option we choose.

MR. CAMERON: Okay, and just for emphasis, the Commission's preferred or preliminary -- not preferred -- preliminary option here had elements of a lot of these, or could you restate it for us?

MR. HILTZ: It principally had elements of Option 1, which was to continue the current process and include performance data when it becomes available to enhance the performance, oriented performance base aspect of that.

Then Option 3, where if implemented, it would ask the staff or if the Commission decides on it, it would direct the staff to look at enhancing the PRA implementation plan maybe more aggressively and look at other areas where we can use risk informed, performance based approaches.

MR. CAMERON: And PRA implementation plan is :tor oriented.

MR. HILTZ: No.

MR. CAMERON: No? Okay.

MR. HILTZ: The PRA implementation plan is an Agency-wide plan to monitor and track risk informed initiatives that are progressing throughout the Agency.

MR. CAMERON: Okay, good.

MR. HILTZ: It probably is fair to say that there are more activities in the reactor area than there are in the nuclear materials area.

MR. CAMERON: Okay. Well, I think that's important information for people to know that PRA implementation plan does cover the full range of Commission activities.

Okay. Yes, Tom.

MR. HILL: Tom Hill, speaking on behalf of the Organization of Agreement States.

I just wanted to get it on the record that the Organization of Agreement States concurs with the comments that Ruth made a few minutes ago on behalf of the CRCPD Board of Directors.

MR. CAMERON: Okay. Thank you. Thank you, Tom.

Do we have some further comments on this issue?

Janice.

MS. STEVENS: Janice Stevens.

Yeah, I just have to say something about this whole issue on communication that -- I'm sorry. I forgot your name.

MS. FAIROBENT: Lynne Fairobent.

MS. STEVENS: -- Lynne brought up and several others commented on. It's just so critical.

As everyone in here knows, the reason why this industry's in the state that it is today is the lack of communication. We all have not appropriately communicated our industry to the average layman.

I mean, how many people in here actually have a nontechnical spouse or friend or family member that has ever understood anything that you've ever done in your whole career? No one. See?

MR. CAMERON: Yeah, we don't associate with those types of people.

(Laughter.)

MS. STEVENS: You have a golden opportunity here with this whole process of trying to pull in the public to take some innovative approaches in simple things, like breaking down your papers to have summary, broad picture statements in the body of the text and then references to the appendices, which you've done some, for the more informed, technical, whatever reader, and then when you go to your public meeting, certainly keeping to that bigger picture to pull in as many people as possible.

Also, if you have those kind of broad summaries, which you might formulate by simply going home to possibly your nontechnical spouse or nontechnical folks

in the office and seeing what it takes to get them to understand these issues, and using that to help recast your write-ups here or your summary write-ups.

But if you come up with those, then you're going to have an opportunity to do more of a PR job in getting information out to the public and pull more people into these type meetings, which will enhance the process for all of us.

So it's just a simple process that's been used so effectively in so many other industries, and it's about time that all of us took responsibility to learn some of those types of approaches.

MR. CAMERON: That's a good point, and certainly probably the most challenging thing that we've all heard over the past day and a half. To try to do that is difficult.

We have other comments?

(No response.)

MR. CAMERON: Okay. Well, it's noon now. Why don't we break until 1:15? And we will have two concurrent sessions, one in this room on waste and another one in the room next door on fees.

(Whereupon, at 12:03 p.m., the meeting was recessed for lunch, to reconvene at 1:15 p.m., the same day.)

C E R T I F I C A T E

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

Name of Proceeding: STAKEHOLDERS PUBLIC MEETINGS ASSURING SAFE OPERATION OF NUCLEAR REACTORS SESSION

Docket Number: N/A

Place of Proceeding: WASHINGTON, DC

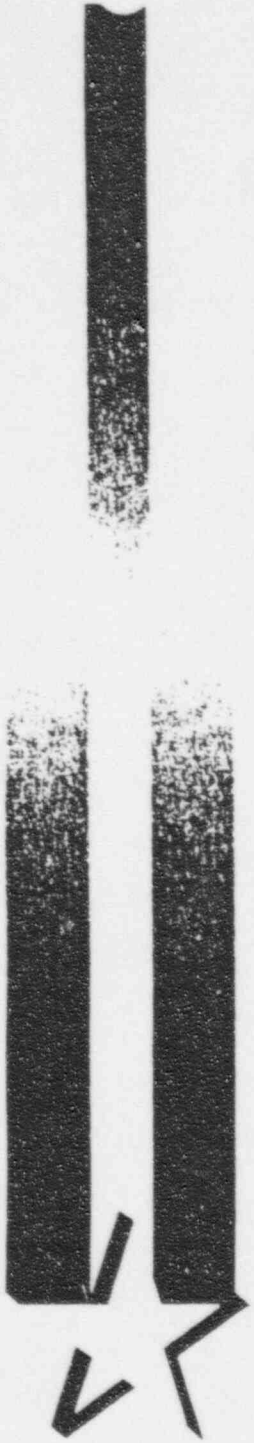
were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and, thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

Corbett Riner
Official Reporter
Neal R. Gross and Co., Inc.

Direction Setting Issue No. 10 Reactor Licensing For Future Applicants

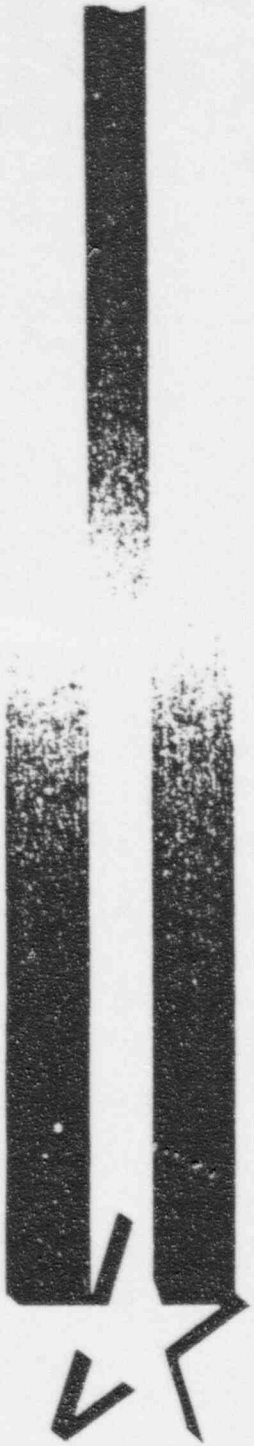
October 24-25, 1996

Sponsor: Frank J. Miraglia, NRR
Writer: Michael J. Case, NRR



DSI 10

★ Given the Current Environment, What Should the Commission's Policy Be on Future Reactors?

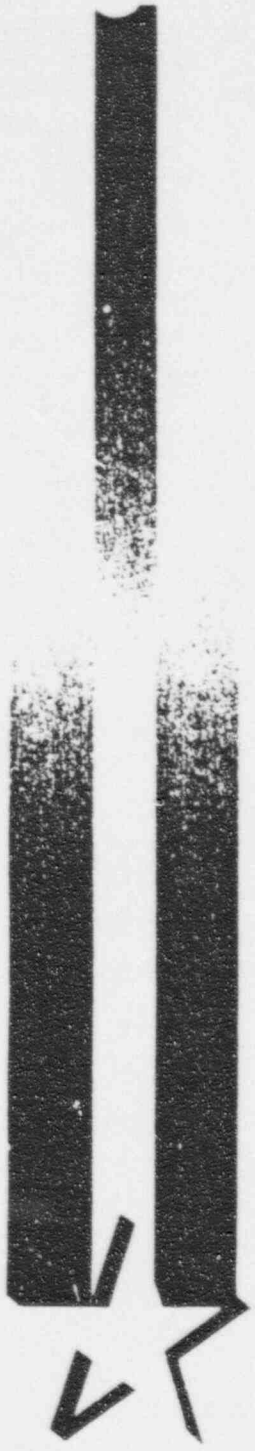


Key Factors

- ★ Commission Objectives in Issuing Part 52
- ★ New Order for Nuclear Power Plant Unlikely in Near Term
- ★ Budgetary Pressure on the Industry, Department of Energy, and NRC
- ★ Foreign Interest in U.S. Approved Designs
- ★ Congressional Interest in Both Part 52 Process and Design Certification Progress

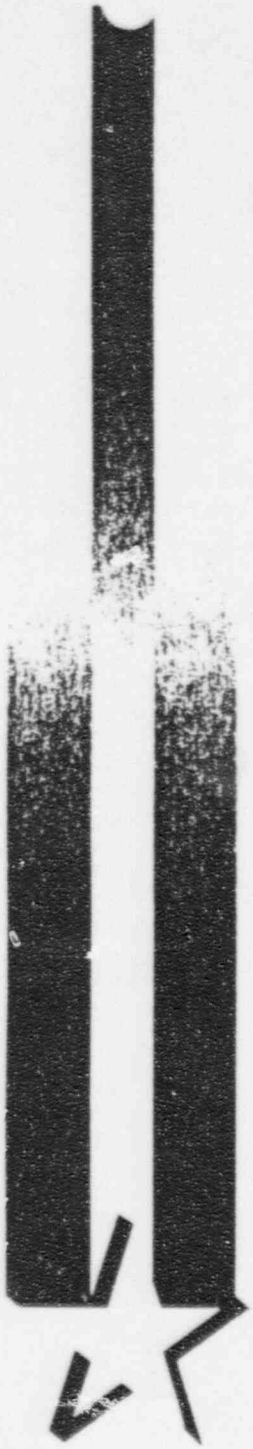
Options

- ★ Reassess-Reprioritize
- ★ Sustained Responsiveness
- ★ Refocus Resources
- ★ Single Solution



Commission's Preliminary Views

- ★ Recognized that fundamental economic decisions by license applicants will determine level of necessary support
- ★ NRC should continue to give priority for reviewing standard and advanced reactor designs, early site approvals, and licensing for new reactor license applicants



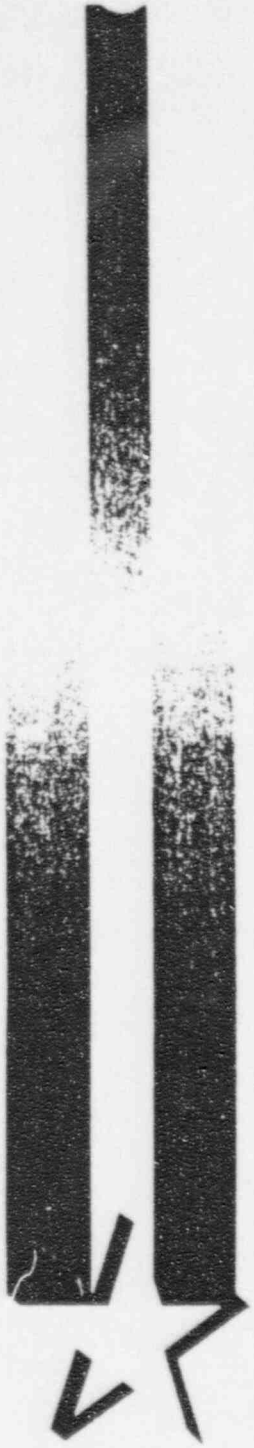
Commission's Preliminary Views (cont)

- ★ Staff should develop implementation guidance for the following:
  - Address maintenance of the Utility Requirements Document and the certified designs through first-of-a-kind engineering
  - Address orderly closeout of all activities and document the work performed (e.g., SBWR, MHTGR)
  - Evaluate design certification process following completion of current applications for lessons learned

Direction Setting Issue No. 11 Operating Reactor Oversight Program

October 24-25, 1996

Sponsor: Frank J. Miraglia, NRR
Writer: Michael R. Johnson, NRR



DSI 11

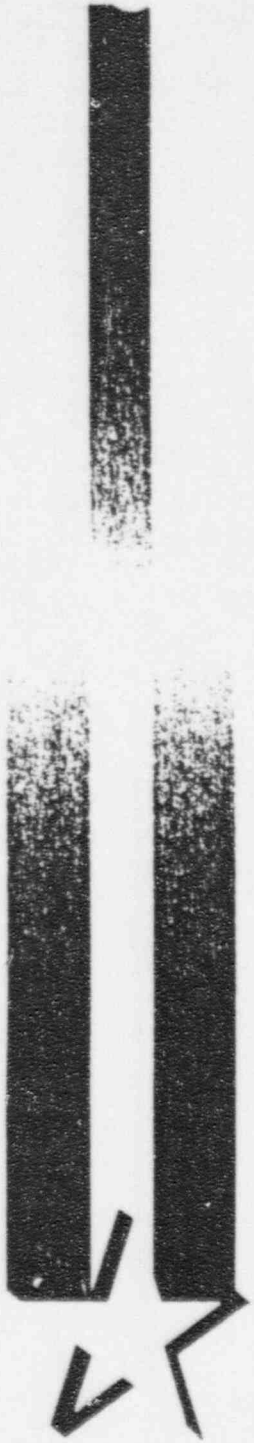
★ Given the Changes in the External/Internal Environment, What Are the Implications for the Current Strategies for the Operating Reactor Program?

Key Factors

- ★ Internal
  - – No new operating licenses under review
  - – 3 - 5 reactors expected to shutdown prematurely
  - – Number of new requirements expected to remain relatively low

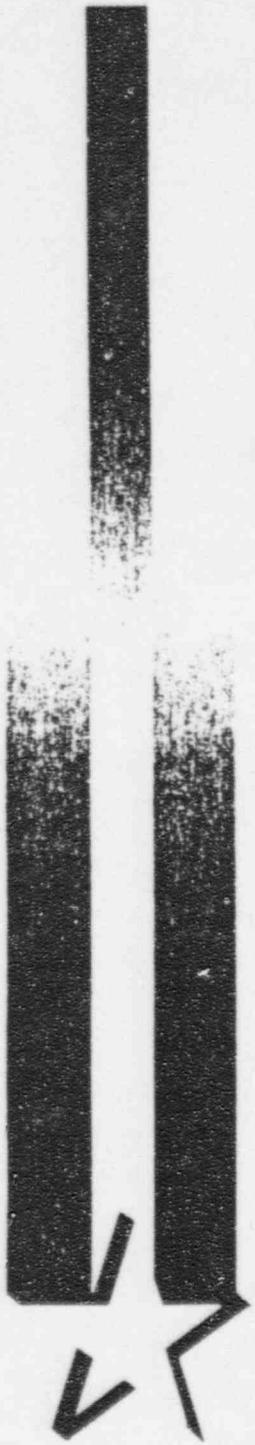
Key Factors

- ★ External
  - Industry deregulation and increasing economic pressures
  - Greater use of PRA to allow for cost savings
  - Industry concerns regarding the level of inspections
  - Component and system aging
  - Safety issues will continue to arise
  - Continued public concern regarding safety and interest in the regulatory process



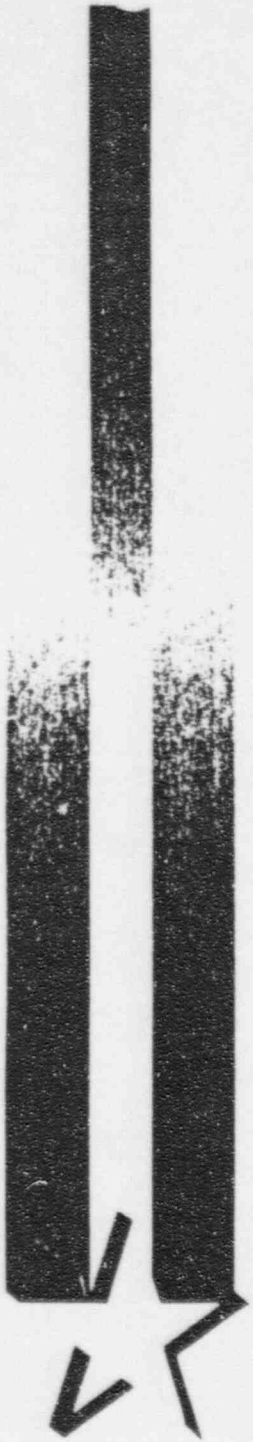
Options

- ★ Review the reactor oversight processes in the context of lessons learned from current issues and develop processes and mechanisms to provide for systematic reexamination of reactor oversight activities to ensure their continued effectiveness.



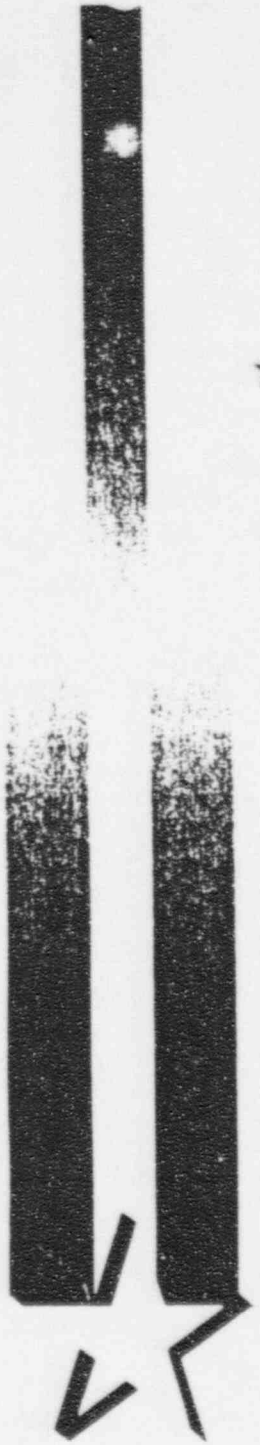
Options

- ★ Seek new approaches within the existing reactor oversight framework to improve effectiveness, work with the industry to foster an environment that is conducive to continued improvements in performance, and provide increased opportunities for public involvement in the regulatory process.
- ★ Perform a Business Process Reengineering.



Commission's Preliminary Views

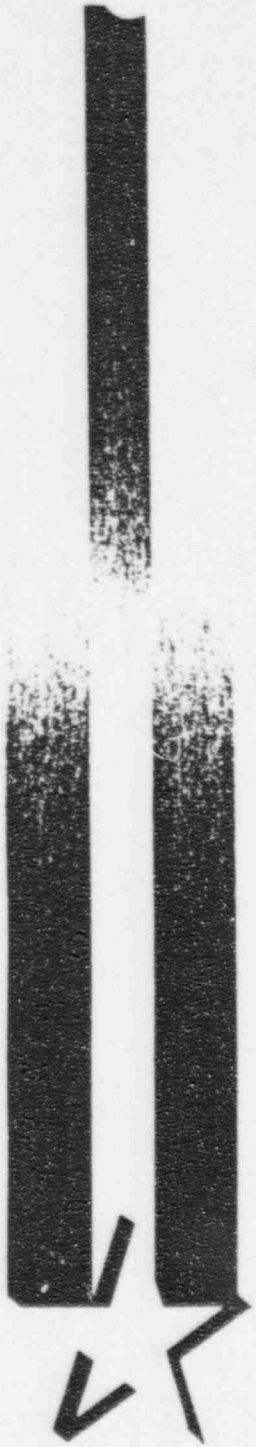
- ★ Option 1
  - Continue ongoing comprehensive review
  - Include systematic reexamination of the reactor oversight program



Commission's Preliminary Views

★ Option 2

- Encourage industry to develop generic guidelines that can be endorsed by the NRC and carried out by the industry
- Provide increased opportunities for public involvement
- Expand use of technology to improve efficiency
- Increase flexibility in staffing multiple-unit sites
- Improve effectiveness and understanding of performance assessment process



Commission's Preliminary Views

- ★ Option 3
  - – Consider work process re-engineering methods to improve various aspects of the reactor oversight program
  - – Identify for Commission review and approval areas that could benefit
  - – Consider "best-practices" from other regulatory agencies (foreign and domestic, nuclear and non-nuclear)

Direction Setting Issue No. 24 Decommissioning - Power Reactors

October 24-25, 1996

Sponsor: Frank J. Miraglia, NRR
Writer: Singh S. Bajwa, NRR

DSI 24

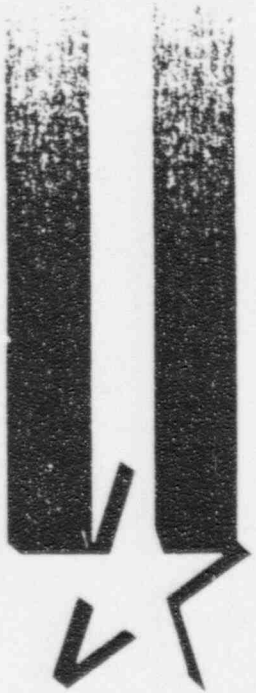
- ★ What Should Be NRC's Strategy for Regulating Decommissioning Activities at Power Reactor Sites?

Key Factors

- ★ External
  - Potential Deregulation of the Power-Generation Industry has Created Uncertainity with Respect to Decommissioning Funding Assurance
  - The Future of Nuclear Power Industry Depends on Economic Factors - Could Contribute to Utility Decisions to Decommission
  - Availability of Waste Disposal Sites Impact Nuclear Utility Decisions Regarding Continued Operation to End-Of-Life
  - Public Interest, Depending on Site Specific Factors

Key Factors

- ★ Internal
  - – Streamlining and Budget Reduction May Affect Decommissioning



Options

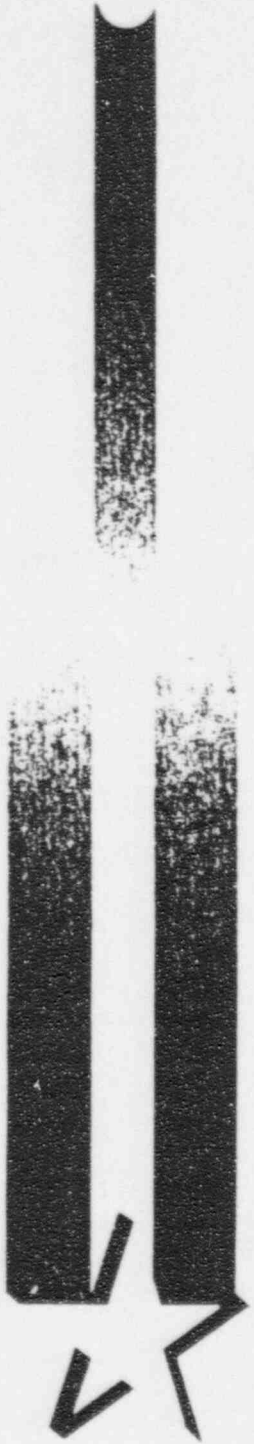
- **Option 1: Continue Current Direction and Approaches**

The NRC Would Maintain Its Current Direction and Planned Initiatives by Continuing the Rulemaking Efforts Currently Underway.

Options

- **Option 2: Pursue Current Direction and Approaches More Aggressively**

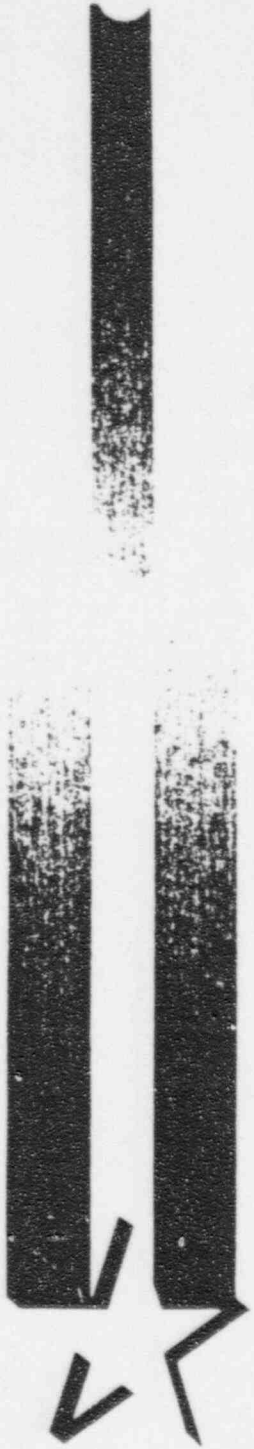
The Staff Would Pursue More Aggressively the Current Direction in Relation to Other Activities and Priorities and Seek Opportunities to Accelerate the Execution of the Decommissioning Related Rulemaking Efforts.



Options

- **Option 3: Proceed More Slowly Implementing Current Direction and Approaches**

The Staff Would Move More Slowly in Implementing Its Current Rulemaking Approaches.

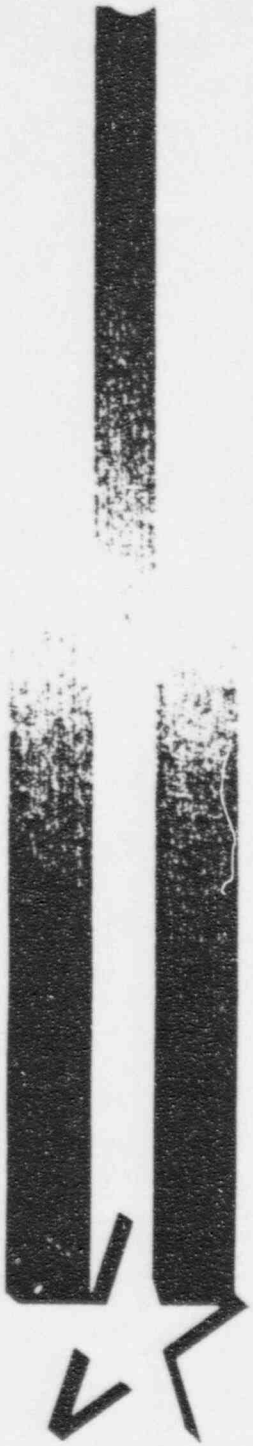


Commission's Preliminary Views

★ Option 1: Continue the current direction and approach, is the recommended option. Implementation guidance in pursuing this option should be expanded to explore more innovative approaches in line with the current Commission strategy in this area.

Commission's Preliminary Views

- ★ In pursuing the current pace of rulemaking, the staff should consider new and innovative regulatory approaches. Examples of possible approaches that might be considered are:
  - Transfer of nuclear power plants to Agreement State control after fuel has been put into dry storage or has been removed from the Part 50 site.
  - Placing a resident site inspector during all phases of decommissioning, only during specific phases of decommissioning, or not at all.
  - Having NRC take an enhanced performance-oriented approach by reducing oversight and performing a radiological assessment of the site when it is ready to be released.



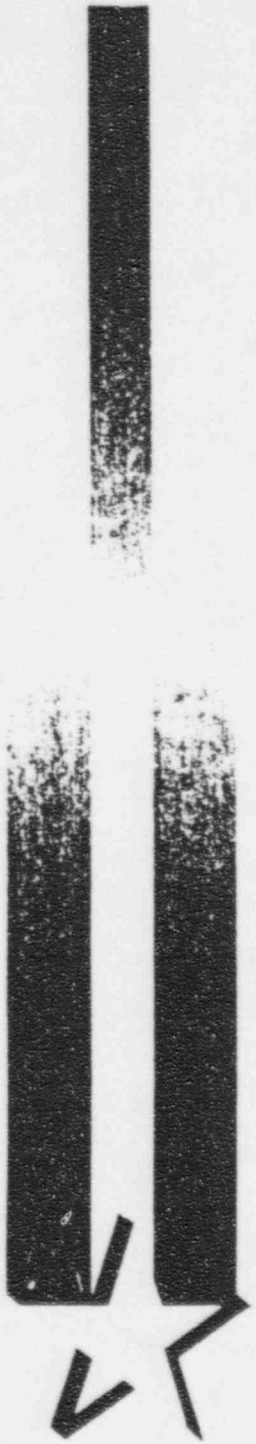
Direction Setting Issue No. 12 Risk-Informed, Performance-Based Regulation

October 24-25, 1996

Sponsor: Themis P. Speis, RES
Writer: Thomas G. Hiltz, NRR

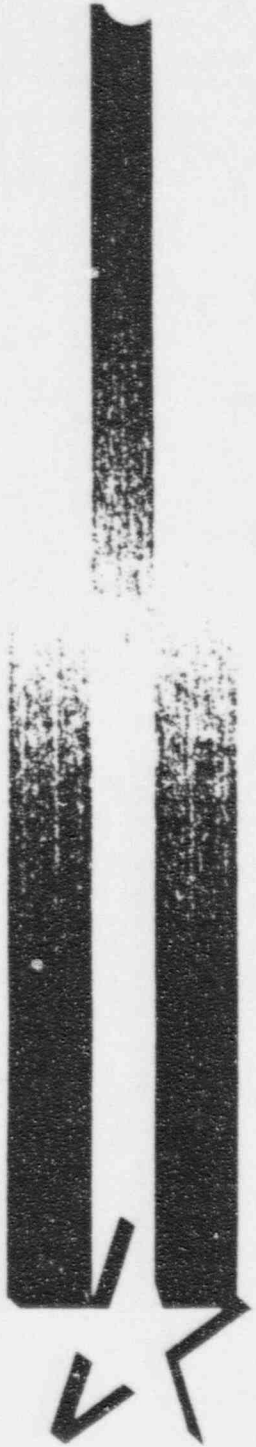
DSI 12

- ★ What Criteria Should NRC Use in Expanding the Scope in Applying a Risk-Informed, Performance-Based Approach to Rulemaking, Licensing, Inspection, and Enforcement?



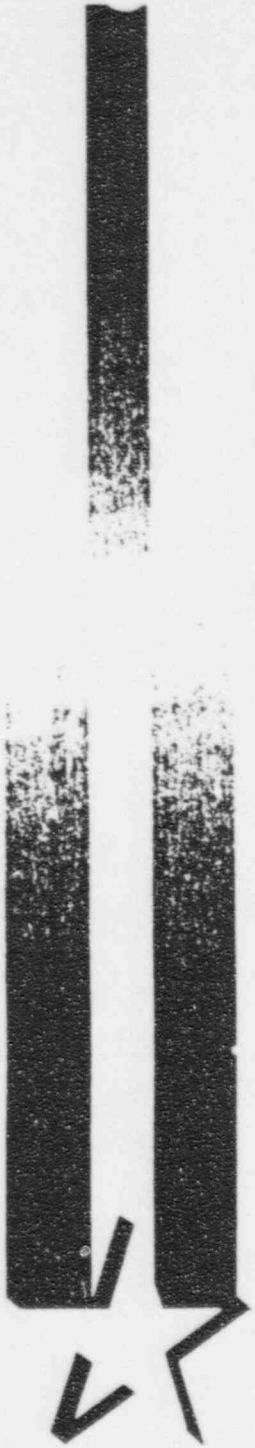
Key Factors

- ★ External
  - Executive Branch and Congress
  - Standards-Setting Organizations
  - Federal Agencies
  - Nuclear Industry
  - Public
- ★ Internal
  - Nuclear Materials Initiatives
  - Commission's PRA Policy Statement
  - Defense-in-Depth
  - Policy and Legal Issues



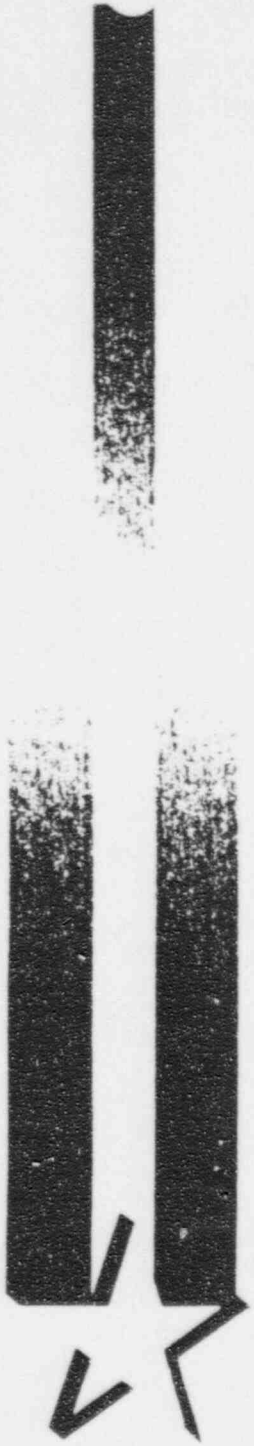
Options

- ★ Continue current process
- ★ More rigorously assess relationship to public health and safety
- ★ Perform a comprehensive assessment of NRC regulatory approaches
- ★ Consider risk-informed, performance-based approaches primarily in response to stakeholder initiatives



Commission's Preliminary Views

- ★ Higher risk activities should be the primary focus of agency efforts and resources
- ★ Staff should continue current efforts (Option 1) on pilot programs and continue to evaluate performance data as it becomes available
- ★ Staff should proceed in the direction of enhancing the PRA Implementation Plan (some elements of Option 3)



Commission's Preliminary Views

- ★ Staff should perform a thorough review of the basis for nuclear materials regulations and processes to identify and prioritize those areas that may be amenable to a risk-informed, performance-based approach. This assessment should lead to a framework for applying PRA to nuclear material uses
- ★ The Commission is particularly interested in public comments on how NRC should deal with dual regulation when applying a risk-informed, performance-based regulatory philosophy