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**UNITED STATES OF AMERICA**  
**NUCLEAR REGULATORY COMMISSION**

**Title:            BRIEFING ON RISK-INFORMED REGULATION**  
**IMPLEMENTATION PLAN**  
**PUBLIC MEETING**

**Location:        Rockville, Maryland**

**Date:            Friday, March 31, 2000**

**Pages:          1 - 88**

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1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION  
3 OFFICE OF THE SECRETARY

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5 BRIEFING ON RISK-INFORMED REGULATION  
6 IMPLEMENTATION PLAN

7 \*\*\*

8 PUBLIC MEETING

9  
10 Nuclear Regulatory Commission  
11 One White Flint North  
12 Commissioners Hearing Room  
13 11555 Rockville Pike  
14 Rockville, Maryland

15  
16 Friday, March 31, 2000

17 The Commission met in open session, pursuant to  
18 notice, at 9:30 a.m., the Honorable RICHARD A. MESERVE,  
19 Chairman of the Commission, presiding.

20 COMMISSIONERS PRESENT:

21 RICHARD A. MESERVE, CHAIRMAN

22 GRETA J. DICUS, Member of the Commission

23 NILS J. DIAZ, Member of the Commission

24 EDWARD McGAFFIGAN, JR., Member of the Commission

25

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1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

2 WILLIAM TRAVERS, Executive Director for Operations

3 DAVID LOCHBAUM, Reactor Engineer, Union of  
4 Concerned Scientists

5 ASHOK THADANI, Director RES

6 THOMAS KING, Director, Division of Risk Analysis &  
7 Applications, RES

8 JOHN FLACK, NMSS

9 TOM ORTCIGER, Director, Department of Nuclear  
10 Safety, State of Illinois

11 ROY ZIMMERMAN, Deputy Director, NRR

12 DR. RICHARD BARRETT, Chief, Probabilistic Safety  
13 Assessment Branch, NRR

14 MARYANN KRUSLICKY, Asst. Director, Resources,  
15 Communications, and Economic Development  
16 Division, GAO

17 STEVE FLOYD, NEI

18 ANNETTE L. VIETTI-COOK, Secretary

19 KAREN D. CYR, General Counsel  
20  
21  
22  
23  
24  
25

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

[8:30 a.m.]

1  
2  
3 CHAIRMAN MESERVE: Good morning. On behalf of the  
4 Commission, I would like to welcome everyone to today's  
5 briefing on the Risk Informed Regulation Implementation  
6 Plan.

7 We will be hearing from two panels; first from the  
8 staff, and then from a variety of outside stakeholders.

9 This is a meeting that reflects an initiative  
10 which is one that has perhaps more than any other, permeated  
11 all of the work of the Commission, namely, our efforts to  
12 risk-inform our regulations.

13 This has been a constant theme on the specifics of  
14 a variety of Commission meetings over the time that I have  
15 been here, perhaps more meetings on various issues related  
16 to our efforts to risk-inform the regulations than on any  
17 other subject.

18 The focus of today's effort is to try to discuss  
19 basically a plan that will envision the entirety and  
20 encompass the entirety of that effort.

21 The notion that we would have a plan is something  
22 that first surfaced, as I understand it, in June, 1999, as a  
23 result of a response to a recommendation with which we  
24 concurred from the General Accounting Office.

25 So I recognize that this is really the first early

1 stage in the development of the plan, but getting your early  
2 guidance on something that is so fundamental to our  
3 activities is very important to us.

4 With that, let me turn to my colleagues, and see  
5 if they have any statements. Let me make one other comment:  
6 As I think you have already observed, Commissioner  
7 Merrifield is not able to be with us this morning.

8 He has indicated to me that he regrets not being  
9 able to participate, given the importance of the issues  
10 being discussed, but there is some illness in his family.  
11 His staff is in attendance and will be briefing him on our  
12 discussions today.

13 He has indicated to me that if there are any  
14 questions that were not addressed at the meeting, that he  
15 will pursue them with the individual panelists in the  
16 future, and he asked me to express his apology, both to this  
17 panel and to the following one, on his inability to join us.

18 Mr. Travers, why don't you proceed?

19 DR. TRAVERS: Thank you, Mr. Chairman, and good  
20 morning.

21 We are pleased to be here with you to discuss with  
22 you, the plans, key issues, and status of our efforts to  
23 risk-inform our regulatory processes.

24 We believe significant accomplishments have been  
25 made over the past six months, and they were recently

1 described in the SECY Paper 0062 that was submitted to the  
2 Commission.

3 Today we plan to discuss these accomplishments  
4 briefly, and recognizing the strong stakeholder interest  
5 that has been expressed on many of these issues, we have  
6 focused our presentation on the key issues -- on many of the  
7 key issues raised by stakeholders.

8 One of those issues is the need for a strategy to  
9 guide the full spectrum of our risk-informed activities.

10 As you will hear this morning, we have begun  
11 development of such a strategy, which we are documenting in  
12 the new Risk-Informed Regulation Implementation Plan.

13 It replaces and also incorporates what was  
14 previously in the PRA Implementation Plan, however, the  
15 objectives of risk-informed regulation have not changed;  
16 that is, we believe risk-informed regulation will lead to  
17 better safety decisions by focusing on what is important,  
18 while at the same time eliminating requirements that do not  
19 have safety importance.

20 With me at the table today are Ashok Thadani and  
21 Tom King from the Office of Research; John Flack,  
22 representing the Office of Nuclear Materials Safety and  
23 Safeguards; and Roy Zimmerman and Rich Barrett of the Office  
24 of Nuclear Reactor Regulation.

25 Ashok is going to begin the presentation.

1 MR. THADANI: Thank you, Bill. Good morning. May  
2 I have Viewgraph Number 2, please?

3 The NRC's strategic plan provides direction for  
4 initiatives to support the Agency's transition to  
5 risk-informed, and where appropriate, performance-based  
6 applications.

7 While the strategic plan strategies provide  
8 general guidance for using risk information to improve  
9 regulation and other activities, more detailed and specific  
10 information is needed to describe the overall Agency plan  
11 for deciding what, how, and when to risk-inform regulations  
12 as well as other activities.

13 As Bill noted and the Chairman noted in the  
14 opening remarks as well, this is our first cut, basically,  
15 at pulling this information together. We recognize there  
16 are some areas that need to be filled in further, and Tom is  
17 going to get into some details of this.

18 But in addition to that, of course, the last  
19 report also includes our accomplishments over the last six  
20 months.

21 The focus of the briefing today is going to be on  
22 what we believe are the key issues of concern, and what are  
23 we doing about those, as well to briefly give you some sense  
24 of the accomplishments over the last six months.

25 May I have the next viewgraph, please? Now, this

1 chart shows a list of major issues that have been raised by  
2 various stakeholders, as noted on this chart.

3 I do want to make a note that while stakeholders  
4 have shown particular interest in these issues, the Staff  
5 has also had these concerns over quite some time, and that  
6 we have, in fact, been working on many of the activities to  
7 address these issues.

8 What we've done here is to divide the concerns in  
9 three categories: The first one relates to the strategy  
10 issues of how we will go forward, what are some of the goals  
11 and objectives; to also emphasize that the focus of this  
12 program is both safety enhancement and burden reduction,  
13 where appropriate.

14 That we are going to go forward with full  
15 communication with various internal and external  
16 stakeholders, and that the process of this strategy about  
17 how and when. As I said, we'll discuss some more of that.

18 The second category of issues and concerns had to  
19 do with implementation; how many licensees would utilize  
20 these techniques; the issues of resources; the sort of  
21 reviews that the Agency would be conducting of this  
22 material; and can the licensees go part of the way with  
23 partial implementation versus full implementation in  
24 specific areas? Again, we'll say a little bit about that  
25 later on.

1           The third area has to do with the technical issue;  
2           that is, there needs to be a very clear understanding and  
3           recognition of the strengths and limitations of these  
4           techniques, to what extent we'll apply these techniques.  
5           Are there areas in terms of methods, data, guidance tools,  
6           criteria, goals, that we would apply that need special work?

7           Now, I don't want to dwell on specific issues,  
8           individual issues, because we will be discussing each of  
9           these issues as we go forward.

10           Next, Tom King is going to get into the strategy  
11           itself and where we are and where we're going.

12           MR. KING: Thank you, Ashok. If I could have  
13           Slide 4, please? I'm going to talk about Slides 4 through  
14           7, which are really our activities to develop what we call  
15           the strategy document, which is officially, Risk-Informed  
16           Regulation Implementation Plan.

17           Mr. Chairman, you noted the origin of the  
18           recommendations to develop this from GAO and our commitment  
19           to do that. We had also provided a memorandum to the  
20           Commission on January 13th, that provided an outline of what  
21           we had in mind in this document.

22           And also in the SECY 0062 Paper, there was some  
23           example sections provided as an attachment to that paper.  
24           The main reason we think that this is a good idea to embark  
25           upon this is that we think that this will be a document that

1 will link the Agency performance goals on risk-informed  
2 regulation which are in our draft strategic plan. They are  
3 high-level general statements that we want to pursue  
4 risk-informed initiatives.

5 It will link those to the implementation efforts.  
6 We call it a road map. In effect, what we believe this  
7 document will do will describe our overall plans and  
8 approach for deciding what are we going to risk-inform, when  
9 are we going to do it, and what needs to be done to do that?

10 In effect, it's going to be a systematic review of  
11 our activities and identify those that are candidates and  
12 where we believe we should proceed in risk-informing.

13 It will also integrate the activities, recognizing  
14 that there are common issues across the various arenas,  
15 things like training, communications, and goals development.  
16 This will be a good way to integrate what we're doing in all  
17 those arenas.

18 It will also be a document that can provide a  
19 periodic updated report on the plans and progress, and it  
20 will replace, as Mr. Travers said, the PRA Implementation  
21 Plan, which in the past had been our periodic document that  
22 updated these activities, but, in my view, had been more of  
23 a catalog of what we were doing, not a strategy of what we  
24 should be doing.

25 So, in effect, I believe that this will certainly

1 improve our coordination, our efficiency, and our  
2 communication in the risk-informed area.

3 If I could have Slide 5, please, we envision the  
4 document having two basis parts: Part 1 will define the  
5 systematic process for identifying what it is we believe  
6 should be risk-informed; and then Part 2, the details of how  
7 you go about doing that.

8 This is work in progress; it's not complete.  
9 There's a lot to be done, to be filled before it really  
10 presents a comprehensive picture of where we believe we  
11 should go and how we plan to get there.

12 We have received some feedback along the way.  
13 You'll hear from GAO this morning about some of their views  
14 on some of the things that still need attention in the  
15 document. We're going to be working on those. A lot of  
16 those, we recognized ourselves.

17 In Part 1, the systematic process, we've proposed  
18 some criteria that can be applied to describe or define how  
19 we would make the decision as to do we proceed with the  
20 risk-informed or not proceed with the risk-informed. Those  
21 criteria basically parallel the Agency's performance goals,  
22 in that they address safety enhancement, necessary burden  
23 reduction, improving effectiveness and efficiency, the  
24 practicality of doing this, other methods, other data,  
25 capability or expertise available to be able to actually

1 implement such a risk-informed process, and stakeholder  
2 interests.

3           Clearly, safety enhancement is our primary  
4 criteria. We certainly want to get that message across.

5           The other criteria are going to be considered, but  
6 we believe risk-informing will lead to enhanced safety, as  
7 well as unnecessary burden reduction.

8           These criteria could also help us in determining  
9 the priority of the activity, which will then lead to  
10 whatever resource needs in the schedule. We also believe  
11 that development of such a document will lead to improved  
12 public confidence, in that it will improve the clarity and  
13 consistency of what we're trying to do in risk-informing our  
14 activities.

15           If I could have Slide 6, please, Part 2 of the  
16 document will describe the details under each of the major  
17 arenas, reactor materials and waste, as to what we're doing  
18 or what needs to be done to risk-inform our activities. In  
19 effect, it will define the scope and schedule of what we  
20 need to do.

21           The level of detail we envision will include major  
22 milestones, major products, major actions that need to be  
23 done. It won't get into details of, for example, specifics  
24 of how we would change the Hydrogen Combustion Rule, for  
25 example.

1           There would be separate papers on major issues  
2 like safety goals, policy issues, and so forth. We'd  
3 envision each arena would have a summary table in the front  
4 that would provide a very easy way to look at what's being  
5 done in the arena. It would point you to the right section  
6 of the document if you wanted more details.

7           It would provide key information dealing with  
8 things like schedule, training priority, and so forth.

9           And then the details in each section would deal  
10 with what kinds of guidance documents need to be developed,  
11 methods, tools, data, what's the communication plan and the  
12 training plan for each of the activities, and what's the  
13 schedule. Could I have Slide 7?

14           How do we plan to complete this document, fill in  
15 all the holes, address the issues? As I said, this  
16 represents work in progress. It focuses right now on the  
17 reactor arena, what we hope to do over the next six months  
18 is fill in the rest of it and come back to you in September  
19 with a complete draft.

20           This will complete the reactor safety arena  
21 portion as well develop the portions for the materials in  
22 the waste arenas. In doing that we are planning to solicit  
23 stakeholder input. You will hear about NMSS, which has a  
24 workshop scheduled already that is going to get into looking  
25 at the criteria and trying to make some decisions on what

1 they want to risk inform. We would intend to the do the  
2 same thing in the reactor arena.

3 Our plan would be to update the document  
4 semi-annually. It is going to be a living document. Things  
5 will change as time goes on, so it will be provided to the  
6 Commission semi-annually as a way to document what we are  
7 doing and where we are going.

8 With that, I will turn it over to Roy Zimmerman,  
9 who will talk a little bit about the reactor area.

10 MR. ZIMMERMAN: Thank you, Tom. Slide 8, please.

11 My plan is to briefly discuss some of the progress  
12 to date that has been made in the reactor arena and then  
13 Rich Barrett will talk about some of the challenges that  
14 have been alluded to that remain that we are working on.

15 With regard to the licensing area, as expected, we  
16 are seeing more risk informed licensing actions being  
17 submitted. Right now we have seen over half of the  
18 facilities submit risk informed licensing action amendments  
19 to us and we have approved over 30 amendments to date.

20 We have also made good progress with the pilots in  
21 both the inservice inspection and inservice testing  
22 programs. Again, when we continue that there will be  
23 significant efforts expended in this areas in the near term.

24 With regard to the oversight process, we have  
25 clearly taken actions to risk-inform the inspection program

1 as well as the assessment program through the significance  
2 determination process. Performance indicators, likewise,  
3 have risk insights brought to bear there, so we think we  
4 have made some substantial improvements in our new oversight  
5 program. As we begin initial implementation, we will be  
6 looking for continuing ways to bring risk insights to bear.

7 In the rulemaking area one of the centerpieces is  
8 clearly our efforts to risk inform Part 50. There are  
9 several initiatives associated with that effort. One of the  
10 initiatives would vary the treatment of systems, structures  
11 and components on the basis of their safety significance  
12 using a risk informed categorization method. This is known  
13 as the Option 2 approach and also looking at the Part 50  
14 regulations themselves, the Option 3 approach. Both of  
15 these efforts are in their formative stages and there will  
16 be continuing interactions with the Commission as we  
17 proceed. Slide 9, please.

18 In the area of decommissioning, the Staff has  
19 completed a final draft of its assessment on the risk from  
20 the spent fuel pools at decommissioned reactors. That final  
21 draft is up for public comment now. That period ends on  
22 April 7th. We will then be looking to issue our final draft  
23 at the end of May and submitting a rulemaking plan to the  
24 Commission at the end of June.

25 With regard to special studies, an example in that

1 area would be what I would call the next step after the  
2 improved standard tech specs. The next level is to go  
3 through and risk inform the tech specs when they are raised  
4 to that common level. There's work and initiatives that are  
5 underway between the Staff and stakeholders with regard to  
6 that process. There's also efforts that are underway with  
7 regard to risk informing efforts in steam generator tube  
8 degradation as well.

9 The last one that I will mention is in the area of  
10 events assessment. When significant operational events  
11 occur, we are assessing qualitatively their risk  
12 significance and using that information to assist us in  
13 determining whether augmented inspection teams should be  
14 sent to the site. In the longer term, the significant  
15 events are being fully reviewed as part of our accident  
16 sequence precursor program, which we'll report on annually  
17 to Congress.

18 With that, I will pass the discussion to Rich  
19 Barrett.

20 DR. BARRETT: Thank you, Roy. As you can see from  
21 Slide 9, the Staff is deeply concerned and is working very  
22 hard on a lot of the issues that Ashok mentioned earlier  
23 that have been raised by our stakeholders, and I plan to  
24 touch briefly on all of them this morning.

25 I would like to focus first on the first and the

1 last bullets, namely PRA quality and the implementation  
2 issues, because they are related to each other and because  
3 they all relate very strongly to Option 2 of risk informing  
4 Part 50, which is on the forefront of our efforts right now.

5 I would like to say that this briefing comes at a  
6 time of rapid change in risk informing the regulatory  
7 process, particularly in the area of Option 2 of Part 50.

8 We have the advance notice of proposed rulemaking  
9 out for public comment. The comment period closes in May  
10 and we expect to get a lot of feedback from all of our  
11 stakeholders.

12 Early thinking on Option 2 related to the  
13 possibility of very, very comprehensive changes to the rules  
14 and all at once, it also envisioned a small number of large  
15 scope pilot efforts and it talked about referencing the ASME  
16 and ANS standards as the road to PRA quality. Finally, it  
17 was predicated on no prior Staff review of licensee methods.

18 Recent statements by some members of the industry  
19 have raised the possibility of alternative approaches,  
20 approaches which would involved a phased approach to the  
21 rulemaking with perhaps doing a few rules at a time and  
22 phasing them in, an alternative view of the pilots, perhaps  
23 more pilots of more limited scope, also a different view of  
24 PRA quality, the possibility of relying heavily on the  
25 industry recertification process.

1 All of these have an implication for the question  
2 of prior review of the Staff. The industry participants  
3 have said that this view is a more pragmatic view. It is  
4 one that gives interim results from incremental investment  
5 of effort. It is a view that would engage a wider community  
6 of licensees, and I think you will be hearing a little bit  
7 about this view from Steve Floyd in the second panel.

8 The Staff is open to alternative directions. We  
9 have held discussions internally about these possibilities  
10 and we will be discussing these in the future with the  
11 Commission.

12 We see a major issue regarding prior Staff review  
13 as being an important issue with important resource  
14 implications, and we believe it is linked to the questions  
15 of quality of PRA and to the scope of the pilots, and so the  
16 Staff would like to avoid or at least minimize prior Staff  
17 review of licensee programs.

18 To accomplish that, we need confidence in the  
19 quality of PRA. Industry emphasis on the certification  
20 process raises the question of the need for the Staff to  
21 understand the standards to which the certifications are  
22 conducted, and we have heard indications from the industry  
23 that they plan to submit the certification process for  
24 scrutiny by the Staff, and that is a very positive thing.

25 We also view the continued effort to complete the

1 ASME and ANS standards as being important to future progress  
2 in risk informing the regulations.

3 If I could briefly touch on the point of selective  
4 implementation, this is still an open question. It is an  
5 important one. We think one of the important considerations  
6 there is the relationships between rule changes. Some rule  
7 changes could be selectively implemented. However, some  
8 rule changes might be coupled. For instance, one proposal  
9 is to look at (a) (4) of the maintenance rule and the  
10 technical specification rule in tandem because they both  
11 control configuration. If they are looked at in tandem, we  
12 would want them to be implemented in tandem, so this is a  
13 consideration that has yet to be decided and we will be  
14 getting back to the Commission on that in the future.

15 As you can see, there are a number of  
16 implementation issues that are still open.

17 If I could touch briefly on the middle bullet,  
18 which is issues related to guidance and tools, we are  
19 confident that we have the basic tools to go forward with  
20 initial implementation of the revised oversight process.  
21 Many of these tools are approximate. Some of them require  
22 considerable effort by risk analysts to use, and this has  
23 resource implications.

24 We intend to refine and improve these tools  
25 through application, through experience and through a

1 focused research program in areas such as the risk-based  
2 performance indicators, improvements to the SPAR model, and  
3 plant-specific Phase 2 worksheets for the significance  
4 determination process. These are all efforts that we have  
5 requested from the Office of Research and they are working  
6 on them.

7 We have also proposed research on methods in areas  
8 such as fire risk, where we think we have a great deal to  
9 learn.

10 In addition, we continue to work with the ACRS to  
11 resolve questions related to the application of such  
12 concepts as defense-in-depth and to resolve questions  
13 related to importance measures. None of these issues, we  
14 believe, represent roadblocks to further progress to our  
15 risk-informed regulation including the oversight process.

16 I would mention in closing that the Staff will  
17 soon be forwarding a Commission paper proposing modest  
18 changes to the safety goal policy, so in summary we do see a  
19 number of issues regarding implementation of risk informed  
20 regulation. We share these with our stakeholders and we are  
21 working to deal with them in an integrated fashion.

22 MR. FLACK: Slide 10, please. There are two  
23 viewgraphs I would like to present to the Commission in the  
24 nuclear material and waste arena. The first addresses the  
25 implementation process to risk inform activities within the

1 office, and the second is to address those activities that  
2 support that process.

3 That is not to say that we are not using risk  
4 within the process itself today. There are a number of  
5 areas in which we have and ongoing projects that use risk,  
6 and I will mention those below, but generally there's really  
7 five areas or elements to implementing a risk informed  
8 process within the office, and the first two, development of  
9 material safety goals and identification of candidate issues  
10 or applications, are basically running in parallel.

11 The first is probably the most challenging, and  
12 that is to provide a means to broadly define a radiological  
13 risk across the areas. There is a great deal of diversity  
14 and complexity within the field and the scope, which will  
15 make this a very challenging undertaking.

16 There is a workshop coming up in this area  
17 soliciting input from stakeholders, and I will briefly talk  
18 about that on the next slide.

19 The next area, identification of candidate  
20 applications, we expect would run somewhat similar to the  
21 reactor arena, and that would be to develop pilot programs,  
22 identify the issues, develop pilot programs and exercise  
23 those and gain insights from doing that, and so we are also  
24 soliciting that input from stakeholders at the workshop next  
25 month.

1           The next three are more process type of areas. It  
2 is clearly the need to understand the link of these changes  
3 to the regulatory process, the use of risk in making those  
4 changes, and then what would it take to develop tools to  
5 make those changes happen and how much will that cost and  
6 what benefit we would get from that.

7           Finally, the stakeholders' support -- are they  
8 supporting it, willing to support it, especially in the  
9 pilot areas where we would be looking for them to volunteer  
10 areas for us.

11           That in a nutshell is really the process that we  
12 are using to risk inform activities, regulatory activities  
13 within the office of NMSS, but there are a number of areas  
14 where we are also using risk today as I speak, and these  
15 have come up to the Commission in various SECYs -- and the  
16 byproduct, the completion of a recent NUREG 6642 that looked  
17 at 40 different areas within that area and the risk from  
18 those systems. There is a medical pilot program underway.  
19 There is the transportation studies that have been done that  
20 take into account changes in the population, source terms  
21 from transporting nuclear materials, and in the future fuel  
22 cycle. We are in the process on that with the High Level  
23 Waste Program, and the fuel cycle facilities where we are  
24 using risk in that arena as well.

25           That pretty much lays out where we are as far as

1 the implementation process is concerned, and on the next  
2 slide, the next viewgraph are really the areas which we are  
3 using to support that process.

4 And again, that involves really five pieces. The first  
5 piece is the group, the Risk Assessment and Management Task  
6 Group, which has now been formed and is reporting at the  
7 Office level, which will allow greater flexibility of  
8 movements across the different disciplines.

9 This group will act as the focal point for  
10 risk-informing activities and performance-based activities  
11 within the Office. There is also the creation of a steering  
12 group which involves the Office directors, as well as  
13 representatives from other Offices, the Office of Research  
14 and NRR.

15 And we're looking to have them as an alignment for  
16 management to assess the progress in this area and  
17 accomplishments, and to provide direction to the group as  
18 well as the Office.

19 We have and will continue to interact with the  
20 Joint Subcommittee, the ACRS/ACNW Subcommittee that has been  
21 formed, and we will receive peer reviews of our products  
22 through that mechanism.

23 The workshop I have mentioned will be next month,,  
24 April, April 25th and 26th, and that is not only gain input  
25 from the stakeholders, but also inform them of our

1 initiative to risk-inform this area.

2 Finally, we're putting together a training  
3 program, developing a pilot. It will be a three-tiered  
4 program:

5 The first tier will target senior management, and  
6 that will be a rollup from the second tier, which targets  
7 the technical staff across the Offices; and then finally a  
8 third tier that will target those that use risk on a  
9 day-to-day basis, the specialists.

10 So, that's basically the approach we're using for  
11 the risk-informed, performance-based initiative within the  
12 Office. And at this point, I'm conclude my presentation.

13 DR. TRAVERS: Mr. Chairman, that completes the  
14 Staff's presentation.

15 CHAIRMAN MESERVE: Good. Thank you very much.  
16 That was very helpful.

17 It's clear to me, as I sort of contemplate what  
18 you submitted, that we have a huge number of activities that  
19 are underway that are intended to risk-inform the various  
20 aspects of the regulations, but are only in the formative  
21 stages of developing the strategy for doing all this work.

22 That is not necessarily wrong, because your  
23 experience on a few of the early efforts is something that  
24 gives you guidance as to the problems you need to confront  
25 in this strategy. So this is not a criticism; it's an

1 observation that we're much more into the work, actually  
2 doing the work that will be covered by this strategy than  
3 the strategy itself.

4 But it does seem to me that one of the things that  
5 we learned from our efforts in implementing the oversight  
6 program is that a very significant element of this is making  
7 sure that we have made the cultural changes within our own  
8 institution; that we have fully involved the Staff at all  
9 levels in the process, so that there is understanding of  
10 what we're up to, obviously some insights that can be  
11 incorporated into the program as well.

12 Now, I wonder if you've -- whether you share that  
13 view, first of all, and then, secondly, what things you  
14 would contemplate that this plan would encompass that would  
15 deal with really the overarching problem of the cultural  
16 change that we're going to need to accomplish to make this  
17 real?

18 DR. TRAVERS: I'm going to turn it over to Ashok  
19 in just a moment, but I want to first say that I do agree,  
20 and in some measure, this is also a work in progress, the  
21 expansion of the involvement of NRC Staff, just as we need  
22 to and have been doing in the oversight process.

23 But let me turn to Ashok to talk about some of the  
24 details.

25 MR. THADANI: This is a very important part of

1 what we call the communications plan, as a matter of fact,  
2 which is very briefly discussed on the strategy portion. It  
3 does include issues of the need for workshops, workshops  
4 where not only do we get external stakeholders, but internal  
5 stakeholders as well; trying to make increased use of the  
6 website.

7 We have a number of internal meetings plan to lay  
8 the whole process out. Once we have actually integrated  
9 these ideas further, as part of the activity that I think  
10 Tom described, then it is, in fact, our intention -- and  
11 it's briefly touched upon in the paper -- is to develop  
12 training plans as well.

13 And you heard John Flack talk about it from the  
14 top-down approach. It is our intention to have this  
15 communication plan to be fairly complete, and use that plan  
16 as a vehicle to achieve the objective the Chairman  
17 described.

18 It's very clear to us, and we have learned from  
19 some of the recent surveys and so on that it is a very  
20 important central issue, and we are planning to address it  
21 through those mechanisms.

22 CHAIRMAN MESERVE: Will that be encompassed in the  
23 next version of the plan?

24 MR. THADANI: Yes, it will be. Currently the  
25 plant says these are the elements, but we will fill in for

1 the September version. Training is part of that, yes.

2 DR. TRAVERS: It's identified in the paper.

3 CHAIRMAN MESERVE: As you have indicated, one of  
4 the underpinnings on, particularly the reactor side for this  
5 activity as well is the basically the progress on assuring  
6 PRA quality.

7 And for that effort, you are looking toward the  
8 ASME efforts, activities, and I guess ANS activities for  
9 low-power and shutdown situations.

10 We had an earlier briefing that suggested that the  
11 ASME effort is taking longer than anticipated, and we're not  
12 exactly sure when we're going to be seeing that product.

13 How is that going to affect our capacity to move  
14 forward?

15 DR. BARRETT: You're absolutely right. The  
16 question of PRA quality has been a recurring question since  
17 we started risk-informed regulation.

18 We have used varying strategies as we've gone  
19 into, for instance, the license amendment reviews. We've  
20 used certain strategies, but as we get into risk-informing  
21 Part 50, Option 2, the standard becomes more rigorous,  
22 especially if you want to have a system that does not  
23 involve prior Staff review.

24 We have been discussing internally, what kind of  
25 options we have, given the fact that we have this schedule

1 or question regarding ASME and ANS. And there is -- it and  
2 many other issues will have some impact on the schedule, and  
3 the Staff is looking at the schedule.

4 There is a Commission memorandum headed up to  
5 discuss the schedule issues. But one of the options that  
6 the industry has proposed is reliance on the industry  
7 certification and peer review process.

8 CHAIRMAN MESERVE: It would be independent of ASME  
9 and coming to closure?

10 DR. BARRETT: Yes. The industry has indicated  
11 that we've discussed this many times in the past with the  
12 industry, and we've always said that before we can go  
13 forward with this in the regulatory process, we need to  
14 understand the standards to which the peer reviews are  
15 conducted.

16 The industry has at least verbally indicated the  
17 possibility of submitting that now for Staff review, so  
18 that's a possible alternative avenue.

19 CHAIRMAN MESERVE: Tom?

20 DR. TRAVERS: If I can add to that, the ASME  
21 standard effort is probably about a year behind schedule,  
22 from what we had envisioned originally. We continue to work  
23 with them to try and hold to the current schedule, get the  
24 issues resolved. There are a lot of technical issues that  
25 need to be resolved.

1           But we still think the standards effort is a very  
2 important effort, and we still intend to continue to pursue  
3 that, both with ASME and the ANS Standards Committees.

4           So, you know, Rich is right; there are some  
5 fallback positions being considered because of the schedule  
6 slip, but we still think the standard is very important to  
7 public confidence, and very important to the issue of  
8 effectiveness and efficiency, in that will help reduce the  
9 need for Staff review and approval.

10           MR. THADANI: If I may also add to this, it seems  
11 to me that particularly as we go forward towards  
12 risk-informing several regulations, that we need to have a  
13 clearly understood view between various stakeholders as to  
14 the quality, scope and so on. Part of that is very, very  
15 essentially as we go forward.

16           Not only is that piece in terms of quality  
17 important, but we also need to -- this is just touched upon,  
18 but I just want to emphasize the importance of the role that  
19 the safety goals would play in this effort.

20           And that as we use the safety goals -- and we have  
21 a paper coming up on proposed modifications to the safety  
22 goal, as well, I think it will become clearer to all the  
23 stakeholders that there may also be opportunities for safety  
24 enhancement as part of that.

25           So, the quality, I think, is a central issue, and

1 the boundary conditions have to be clearly stated and  
2 understood, if we are, indeed, going to go to risk-inform  
3 various parts and various regulations and Part 50.

4 CHAIRMAN MESERVE: Commissioner Diaz?

5 COMMISSIONER DIAZ: Thank you, Mr. Chairman. I  
6 would like to congratulate the Staff for presenting an  
7 enormous amount of information in the smallest amount of  
8 time that I can remember.

9 [Laughter.]

10 COMMISSIONER DIAZ: I don't know whether that's a  
11 criticism or actually a congratulations.

12 I think that one important thing that I got from  
13 the paper and the briefing is that order is coming to the  
14 house. I think we have multiple activities that I want to  
15 express my appreciation for the Division between strategy,  
16 implementation, and technical issues.

17 I think that's a very important thing. It will  
18 allow you to map what you're doing in an area. It would  
19 allow the Commission to be informed of how the progress or  
20 problems are in one of those areas. I think that's very,  
21 very, very critical.

22 Before I go at you, let me just make one favorite  
23 comment. I think we need to continue to separate in this  
24 process, what is risk-informed, what is performance-based,  
25 and what is risk-informed/performance-based.

1 I think that we get our language tangled up, and I  
2 think we owe it to the stakeholders to be clear on what  
3 aspect of it we're going at.

4 My next comment is the fact of the need to do the  
5 planning and bring these activities into a comprehensive,  
6 holistic plan, with some urgency. I think we all know that  
7 some trains have left the station. They are probably  
8 powered by their own, but I still believe that some of the  
9 chips that provide control to this trains are still back in  
10 the station, and this is what we're trying to achieve.

11 I think it's an important issue. We have both  
12 oversight, maintenance rules, multiple activities out there,  
13 and still the framework is not there. So I see this work as  
14 indispensable to provide the foundation in which, you know,  
15 clear movements can be made. And there is no doubt that  
16 they are taking place.

17 I'm going to go on the limb here and say that I  
18 believe that an enabling part of this program is  
19 establishing the quality of the PRA. I don't think we can  
20 overemphasize that.

21 I think we hear too many paths and too many ways  
22 on this. I think we need to grab the bull by the horns, and  
23 I would encourage the Staff to clearly come to the  
24 Commission and say what is your preferred options in this  
25 case?

1           Then we need to hear from you without -- you have  
2 been interacting with the stakeholders, but I do not believe  
3 that we can proceed, you know, any further without some  
4 definition of what the quality of the PRA is.

5           And I don't have any preferred options. If the  
6 industry wants to have a certification process that is  
7 peer-reviewed and that is good and they want to submit it to  
8 us, I think that's fine.

9           But I don't think we can keep delaying this issue,  
10 because it impacts on the multiple pathways. It actually is  
11 kind of a little deterrent that keeps coming over and over  
12 again. I think we need to face it.

13           If we're going to go this way, we need to  
14 determine, you know, clearly, and spell out what the quality  
15 of the PRA is.

16           I think the issue of the quality, you know,  
17 impacts on which way we are going to deal with this process.  
18 The prior Staff review is an important issue, and it needs  
19 to be tied to it, and it needs to be determined.

20           And sometimes, you know, I'd rather we risk  
21 something and maybe go a little bit beyond and then, you  
22 know, go back and do it, than not doing it.

23           We have been talking about this issue for years'  
24 now. I think it needs to be resolved, and I think the  
25 Commission needs to be thinking of the staff clear on this

1 issue.

2 I have probably about two hours and thirty minutes  
3 of questions on this issue, which I would have to hold on to  
4 for some better time, but fundamentally, I'd like to go back  
5 to the issue of do we do a little bit, do we do more, how do  
6 we do it, and the fact that you're interacting on these  
7 things.

8 I have always held the view, and I still do, that  
9 the handling of risk-informing structures, systems, and  
10 components, should be as much as possible, you know, a  
11 wholesome undertaking.

12 Would you please provide us with your views, your  
13 views, your views, the Staff views, on how much can we do  
14 and what are the advantages of taking a section of, I'll  
15 say, ECCS or what are the areas and structures, systems, and  
16 components that should be done together?

17 MR. KING: Yes, maybe I'll start off -- we  
18 certainly agree in risk informing Part 50 in the technical  
19 study we are doing in Research that we want to look at the  
20 full set of regulations and we recognize that you can't do  
21 everything all at the same time, so we are trying to  
22 prioritize those and take bite-size chunks where we can get  
23 some progress under our belt to find a method and approach  
24 for proceeding into the next set of regulations. We have  
25 started with 50.44, combustible gas control, and 50.46,

1 ECCS, that we may come forward with some recommendations  
2 that would deal with a portion of 50.46. We don't want to  
3 be held hostage by trying to get everything resolved before  
4 we come forward with a full revision to 50.46. We believe  
5 it is important if we make some progress in a certain area  
6 to come forward and try and implement that progress.

7 We are planning to take a comprehensive look at  
8 the set of regulations, so in that sense I agree with you.

9 MR. THADANI: Yes. I wanted to again add that the  
10 two regulations Tom talked about, combustible control and  
11 emergency core cooling systems, once we have the goals and  
12 criteria laid out we would also be looking to see if there  
13 are areas in fact where we think safety enhancement ought to  
14 be made. That is part of the program as well.

15 I think that is certainly dependent on making sure  
16 that we have a very clear understanding of how safe is safe  
17 enough. That is the floor in terms of how far would we push  
18 certain issues, the role of cost benefit analysis and so on  
19 in that process.

20 I think those elements are also what we are  
21 looking at, in addition to specific regulations that are on  
22 the books today.

23 COMMISSIONER DIAZ: Has the work been completed in  
24 what I will call the first task of looking at a complex set  
25 of regulation, what I will call "search and destroy" --

1 which is you look and you say, yeah, has that work been  
2 done?

3 MR. KING: I has been completed in the sense we  
4 have gone through Part 50 and we have identified about 23  
5 areas that we think are candidates to be risk informed. It  
6 includes 50.44 and 50.46, but you will see there is a status  
7 report coming up very shortly that has that list in it, so  
8 you can see where we stand when identifying those things.

9 DR. BARRETT: If I could add, Commissioner, a word  
10 about Option 2, I think one grouping of regulations that  
11 could go together are those regulations that control  
12 configuration. The industry has talked about looking at  
13 (a)(4) and the technical specification requirements.

14 Their experience has been in implementation or  
15 preliminary implementation that sometimes (a)(4) is  
16 controlling, sometimes the technical specifications are  
17 controlling. They are quite often inconsistent. There is  
18 an opportunity there to take a single issue, configuration  
19 control, one that is very important to risk and deal with it  
20 in a risk informed way.

21 I think that is an example of how you can pick off  
22 a --

23 COMMISSIONER DIAZ: I think that is definitely a  
24 very worthwhile area. I get concerned as we get these  
25 trains out that we have the controls in place and there will

1 be a consistent set of rules that would allow us to follow  
2 them.

3           There's almost two things. There's a series of  
4 activities and then there is what supports those activities  
5 and I am for having a complete set being developed at the  
6 same time, even if like in the oversight process the  
7 activity goes before the rules and might drive the rule, but  
8 we need to have things that enable the progress that will  
9 not come back and haunt us. I think that is the framework  
10 that we need.

11           MR. THADANI: Yes. The only comment I would make,  
12 Commissioner Diaz, would be that in some cases it is going  
13 to take time, because there may be areas where we just don't  
14 have methods and capability that would have to be part of  
15 the process as well.

16           CHAIRMAN MESERVE: Commissioner McGaffigan.

17           COMMISSIONER MCGAFFIGAN: The impression I have --  
18 I will start off with is that things in this area are still  
19 not exactly stable.

20           If I look back at what was presented us in 99-256,  
21 we didn't know that the standard was going to be delayed.  
22 We didn't know the industry reaction to 256, which came in  
23 after the sort of things that Rich Barrett talked about, and  
24 so there's been a lot of changes in just four months and  
25 most of them in terms of planning, trying to plan something,

1 in the negative direction.

2 I say this in part just for the GAO folks who are  
3 going to come next. In my vote on 256 I pleaded with GAO  
4 and others to understand that this is not a straightforward  
5 exercise in which we know all the answers from the outset  
6 and not to expect that we can lay out a detailed plan with  
7 precise resource loads, so I am a little bit of a broken  
8 record on that, but I think I have been proven right over  
9 the last four months that detailed planning with exact -- in  
10 October we are going to be doing "x" -- are sort of futile  
11 in this exercise.

12 I do want to associate myself with Commissioner  
13 Diaz, that I think the PRA standard is critical and we have  
14 to get it right in order to have broad stakeholder  
15 confidence. I think Mr. Ortogir is going to say that later  
16 and others will echo that.

17 Mr. Barrett, you said that you were going to soon  
18 get a safety goal policy statement paper, and Ashok  
19 mentioned it as well. It is going to make, I think you  
20 said, modest changes supposedly.

21 Is CDF -- are there going to be goals for CDF and  
22 large release frequency? Is that a modest change or is  
23 that --

24 DR. BARRETT: Let me let the Office of Research --

25 MR. THADANI: Let me address this --

1 DR. TRAVERS: Let me just say one thing.

2 MR. THADANI: Sorry.

3 DR. TRAVERS: Just as an administrative matter, I  
4 signed that paper yesterday, so you will have it today if  
5 you didn't get it yesterday.

6 MR. THADANI: Yes.

7 DR. TRAVERS: And then I will let Ashok tell you  
8 what is in it.

9 [Laughter.]

10 MR. THADANI: It has got some recommendations in  
11 it, but it does not propose elevating the 10 to the minus 4  
12 core damage frequency up to the level of a goal.

13 COMMISSIONER McGAFFIGAN: It does not?

14 MR. THADANI: Does not.

15 COMMISSIONER McGAFFIGAN: So you don't need -- I  
16 mean the connection to the PRA quality issue and raising  
17 these to goals, we always talk about not believing the  
18 absolute numbers in these PRAs, maybe believing the  
19 differential numbers when we make a change, so if you had  
20 been proposing CDF and LERF a PRA quality issue would have  
21 played into this.

22 MR. THADANI: No, I think the PRA quality issue is  
23 going to be there regardless, because the current goal has  
24 10 to the minus 4 as a subsidiary objective rather than at  
25 the core level.

1 COMMISSIONER MCGAFFIGAN: A LERF goal.

2 MR. THADANI: And what we are proposing of course  
3 is also to have LERF as a subsidiary objective as well and  
4 addition to core damage frequency, which is what we are  
5 doing today and to indicate that that is probably what ought  
6 to be in the policy statement.

7 Commissioner, I think the issue of quality is  
8 quite separate, and if we are going to use these techniques,  
9 then we have to have high confidence in the quality of  
10 analysis.

11 These are in the end safety analyses.

12 COMMISSIONER MCGAFFIGAN: Right.

13 MR. THADANI: Decisions are made and the quality  
14 is essential.

15 COMMISSIONER MCGAFFIGAN: In order not to use too  
16 much time on this, since there is paper soon going to be  
17 before us, I will get off of that.

18 The issue of NMSS, I don't want to leave NMSS out  
19 of this, Seth Copeland just before he retired had what I  
20 guess was considered a DPO, although he questioned whether  
21 it should have been a DPO, and I have read the report of the  
22 panel that looked at it, but the basic criticism he had was  
23 that this -- you know, we sort of put a lot of  
24 infrastructure first, created a bureaucracy for the sake of  
25 risk informing the materials regulations without thinking

1 whether there was much opportunity there, and he postulated  
2 we had things, you know, safety goals essentially -- they  
3 are Part 20 -- and he postulated that not all of what we do  
4 in NMSS space is going to be able to be risk informed  
5 because there are statutes that drive us in risk space to  
6 very, very, very low risks.

7           Where does all this stand? He predicted there  
8 wouldn't be a lot of stakeholder interest. You're going to  
9 have these meetings, but I got from reading the panel's  
10 report some sense that they agreed with a lot of his  
11 criticisms in sort of muted ways and so rather than PIRT  
12 charts and all, whatever you guys do down there, are we  
13 thinking about this from first principles?

14           MR. FLACK: Yes, I think the areas that I have  
15 outlined on the viewgraph indicated some of the things that  
16 came out of that report.

17           The development of a steering group within the  
18 Office would certainly provide direction to what needs to be  
19 done and how we are going to do it.

20           The risk group now reporting to the Office  
21 Director directly, being able to understand the different  
22 disciplines being able to move across disciplines again from  
23 a top-down view, and I think this workshop will lay a lot to  
24 where we go from here.

25           I think this is going to be a key milestone in the

1 process and to see how or what stakeholders come in with,  
2 and what are the areas and how we might develop them  
3 further, so I think we are very sensitive to those comments  
4 and we are working on a direction to address them.

5 COMMISSIONER MCGAFFIGAN: I hope Seth comes out of  
6 retirement and attends that workshop.

7 MR. FLACK: Yes.

8 COMMISSIONER MCGAFFIGAN: The last -- or at least  
9 as a retiree -- the last question. NEI has adopted  
10 different words. You know, they don't call it risk  
11 informing Part 50 anymore. They call it safety focusing our  
12 activities or safety focusing Part 50. I think they are  
13 trying to deal with a public -- I will make a bet if you  
14 went out and did one of these things that people running for  
15 office pay lots of money for polls on, you would find that  
16 the public reacts better to the word "safety focusing" than  
17 to the word "risk informing" so is there -- but we have been  
18 using two different vocabularies for about the last year and  
19 I just would ask if you have any reaction to what I think  
20 may be clever -- and I think it has some substance to it.

21 I think it goes to some of the issues that Mr.  
22 Lochbaum is going to raise later, because the goal of risk  
23 informing these regulations is to allow our limited  
24 resources to be focused on safety important measures, and so  
25 we are safety focusing our activities when we risk inform,

1 so if you have any reaction to whether we should think about  
2 our words differently --

3 DR. TRAVERS: We should always think about them.  
4 I haven't thought about that in particular, but I think you  
5 are right in what we are trying to convey as a point of  
6 emphasis, and that is what we are trying to do a better job  
7 at is focusing on safety and get the safety payoff that  
8 comes along with risk informing our processes.

9 To the extent we can do that with some better  
10 terminology, I think it is always worthy of some  
11 consideration.

12 MR. THADANI: I might just note, Commissioner,  
13 that that is why it was risk informing, but of course I  
14 think we do need to rethink this, but there was this debate  
15 where in this country we used to call probabilistic risk  
16 analyses and the Europeans in general didn't like that very  
17 much, and the terms that Europeans use is probabilistic  
18 safety analysis, and we do need to rethink that issue.

19 COMMISSIONER MCGAFFIGAN: Okay.

20 CHAIRMAN MESERVE: Commissioner Dicus.

21 COMMISSIONER DICUS: Thank you. I likewise want  
22 to associate myself with the importance of the PRA, the  
23 importance of the quality of the PRAs and the importance of  
24 some consistency in a standard for the PRAs, and it is  
25 important that this be done very early on in the process, so

1 this needs our attention and it needs it now, and so I want  
2 to emphasize that.

3 What I want to do is make a couple of comments and  
4 perhaps a question on the SECY paper before us, 62. You  
5 call it an initial draft and I appreciate that, which  
6 obviously I guess we are going to get a secondary draft  
7 coming to us before too long, but one of the things I want  
8 to emphasize is that it truly, that we truly have an  
9 implementation plan and I think sometimes our PRA  
10 implementation plan became basically a listing of activities  
11 and not truly a plan.

12 A plan needs goals, endpoints, a roadmap to get  
13 there, so I would caution that when we continue to work on  
14 this paper that we see this coming together. Let me go to  
15 Slide 4.

16 I am going in with the purpose of what you're  
17 trying to accomplish, and go down to the third bullet under  
18 Purpose to integrate activities and programs to accomplish  
19 the plan.

20 And you have noted that there are cross-cutting  
21 arenas. There are things that are going to have to be done  
22 in some organized fashion.

23 I'm assuming that when you continue to work on  
24 this plan, we will see how you're going to integrate that.  
25 I didn't really notice it from the paper.

1 MR. KING: Yes, the paper does not have anything  
2 in that regard, but you're right, we do plan to talk about  
3 integration of those cross-cutting issues.

4 COMMISSIONER DICUS: All right. That's going to  
5 be important. Let's go to Slide 5.

6 You have listed criteria that will be applied and  
7 what they're going to be based on. At what point will these  
8 criteria be sufficiently developed to be used in our PBPM  
9 process. It does have resource implications or could quite  
10 possibly have resource implications where we're going to  
11 have start switching resources, perhaps, or perhaps not. So  
12 at what point are we going to see this to be a useful tool  
13 for the resource implementation?

14 MR. THADANI: Certainly the plan was to provide --  
15 develop all of this information and make it part of the  
16 paper that we owe the Commission.

17 The idea here was to make sure that we had done  
18 initial technical evaluation to have some confidence that,  
19 in fact, those are the areas that we should be pursuing  
20 further. And we owe the Commission all of this information  
21 in December.

22 That would then become part of the process of  
23 planning and budgeting.

24 MR. KING: Yes, the draft criteria that are in the  
25 0062 paper right now basically -- we started with the

1 criteria that are in the Agency's strategic plan, the four  
2 performance goals, and tried to expand upon them a little  
3 bit.

4 So, we're trying to keep it consistent from the  
5 top down, and apply the same considerations. Now, when we  
6 get into some of the details, for example, like practicality  
7 of risk-informing a certain area, then that adds some extra  
8 detail that you won't find in the strategic plan.

9 But basically we're trying to take the same  
10 elements and the same basic criteria and apply them in this  
11 process.

12 COMMISSIONER DICUS: Okay, in the December  
13 timeframe of 2000.

14 One final question, very quickly: What's going to  
15 be the role of the Agency's PRA Steering Committee? Is that  
16 going to go away? Is it going to change, or is it going to  
17 be the same?

18 MR. THADANI: No. The PRA Steering Committee is  
19 going to remain the same as we go through. In fact, I think  
20 we are considering more frequent meetings than we have had  
21 as a committee. We have been meeting approximately every  
22 two months.

23 We're rethinking, things are moving. Some of the  
24 issues need prompt attention.

25 I have also talked to Dave Helwig, who is Chairman

1 of the industry steering group, that we are going to meet in  
2 an open, public meeting, every two months, with them.

3 And it is our intention to have an internal  
4 steering committee meeting every month, and we're going to  
5 stay engaged on these issues.

6 COMMISSIONER DICUS: Thank you.

7 CHAIRMAN MESERVE: Thank you very much. We very  
8 much appreciate the Staff's assistance this morning.

9 And let me call our second panel to the table. We  
10 have been joined by Steven Floyd, who is the Director for  
11 Regulatory Reform and Strategy in Nuclear Generation for the  
12 Nuclear Energy Institute; by Maryann Kruslicky, who is the  
13 Assistant Director for Resources, Communication, and  
14 Economic Division of the General Accounting Office; and  
15 joined by Mr. Tom Ortziger, who is the Director of the  
16 Illinois Department of Nuclear Safety. I'm very pleased to  
17 see him here. I've had the opportunity for extensive  
18 interactions with his Agency in the past; and we've been  
19 joined by Mr. David Lochbaum, who is a Nuclear Safety  
20 Engineer with the Union of Concerned Scientists.

21 Why don't we get underway. Let me suggest to you  
22 that one of the most valuable aspects of our interaction  
23 with the panels is the question and answer time that we  
24 have, so I'd ask that you all try to limit your opening  
25 remarks as best you can to the allotted time, so that we'll

1 have ample time to ask questions of you.

2 Why don't we call on Ms. Kruslicky to start.

3 MS. KRUSLICKY: Good morning, Chairman Meserve.

4 Please call me Maryann. Ms. Kruslicky is a mouthful. Other  
5 Commissioners, thank you for inviting us today to  
6 participate in this briefing on NRC's proposed Risk-Informed  
7 Regulation Implementation Plan.

8 Can I have Slide 2, please? Thank you. As you  
9 know, in March of 1999, we recommended that NRC develop a  
10 comprehensive strategy to guide your move to risk-informed  
11 regulation. We made this recommendation, believing that  
12 you, as well as NRC managers and Staff and other  
13 stakeholders, would be better informed about and better able  
14 to plan for various activities that would affect them as you  
15 move to become a risk-informed, performance-based  
16 organization.

17 The plan includes many of the issues that we  
18 raised. It has goals, objectives, performance measures, and  
19 milestones. It also demonstrates NRC's commitment to  
20 integrate the Government Performance and Results Act with  
21 your activities and processes.

22 Next slide, please. However, the proposed plan is  
23 not the road map that we envisioned, and does not provide a  
24 clear and complete picture about where NRC is going and how  
25 it will get there.

1           This week at the Regulatory Information  
2 Conference, Sam Collins and Roy Zimmerman said that  
3 effectiveness is defined as NRC doing the right work, and  
4 efficiency is defined as doing the work right.

5           We do not believe that the plan as currently  
6 proposed allows the Commission and other stakeholders to  
7 know whether NRC is doing the right work. Next slide,  
8 please.

9           The plan also does not include resource estimates,  
10 and it does not allow all stakeholders to see the overall  
11 short- and long-term activities that the Agency has ongoing  
12 or expects to undertake. Next slide, please.

13           We would suggest that the plan should include as  
14 many activities as NRC can reasonably anticipate. For  
15 example, NRC Staff say that they cannot plan for  
16 risk-informing Part 50 until the Commission gives them their  
17 direction, possibly in the Spring of 2001.

18           However, at least a year ago, and possibly longer,  
19 the industry provided NRC a suggested list of regulations,  
20 and in SECY 99-264, NRC Staff identified some tentative  
21 regulations that could be risk-informed.

22           Therefore, we believe that the Staff can develop a  
23 plan for either individual regulations or blocks of  
24 regulations that would include at least information dealing  
25 with the estimated date for providing information to the

1 Commission, publishing the proposed regulations for public  
2 comment, having a final proposal to the Commission, and an  
3 implementation or completion date.

4 We believe that the Staff can answer these  
5 questions, set milestones, and modify them as circumstances  
6 warrant. This is supposed to be a living document.

7 We also believe that the plan should include  
8 resource estimates. Now the plan refers the reader to the  
9 Planning, Budgeting, and Performance Measures process.

10 Why should the Commission and other stakeholders  
11 have to go to different documents to obtain information?  
12 The Implementation Plan should be a stand-alone document.

13 An example of this is Mr. Barrett this morning in  
14 his comments, several times said that this activity is going  
15 to be very resource-intensive or time-consuming. The plan,  
16 as currently structured, does not let you know which of  
17 those activities that comment applies to.

18 Taken together, identification of the full range  
19 of possible activities, estimated timeframes, and resource  
20 estimates, would not only allow you and the NRC managers to  
21 determine whether the Agency is doing the right work, but it  
22 would also allow the Agency to make tradeoffs among the  
23 activities that it conducts.

24 For example, with a full range of information, you  
25 could decide to direct the Staff to take a number of

1 short-term activities with minimal cost, but possibly  
2 minimal impact; or you might want to direct the Staff to  
3 undertake fewer long-term, more resource-intensive  
4 activities that ultimately will have a significant impact on  
5 maintaining safety, reducing unnecessary regulatory burden,  
6 and enhancing effectiveness and efficiency.

7 Mr. Chairman and Commissioners, with the plan as  
8 proposed, you do not have the information to make these  
9 tradeoffs. Next slide, please.

10 We also believe that a one- or a two-page summary  
11 or timeline could assist the busy manager to plan for the  
12 near- and long-term and that NRC should have identified  
13 those activities that are critical to achieving its  
14 objective. PRA quality might be one of those critical path  
15 items.

16 Next slide, please. In summary, NRC cannot wait  
17 until the next iteration of the plan to address these  
18 missing elements. As Commissioner Diaz remarked this  
19 morning, the train has left the station, and do you want to  
20 be left at the station? We do not believe so.

21 NRC has set an aggressive course for itself, and a  
22 complete implementation plan should help you achieve that  
23 course and continue your train trip to a successful  
24 conclusion.

25 Finally, NRC says that it will develop an

1 integrated communication plan. We believe that an effective  
2 implementation plan, including resource estimates and at  
3 least estimated completion dates or implementation dates,  
4 could serve as your communication vehicle, thereby saving  
5 NRC Staff time and resources.

6 Thank you for your attention.

7 CHAIRMAN MESERVE: Thank you. Mr. Ortciger?

8 MR. ORTCIGER: Good morning. This is a relatively  
9 new position for the Department to be taking. Over the  
10 years, we have probably disagreed on more issues than not.  
11 Some contentious public policy issues such as one millirem  
12 comes to mind, and KI.

13 CHAIRMAN MESERVE: Occasionally you've disagreed  
14 with me, too, Mr. Ortciger.

15 MR. ORTCIGER: Yes, we have.

16 [Laughter.]

17 COMMISSIONER DIAZ: I thought the Chairman was  
18 going to say welcome to the club.

19 [Laughter.]

20 MR. ORTCIGER: Our divergent opinions on low-level  
21 waste performance assessments are probably well known to  
22 everybody at the NRC. But what we do see is a very clear  
23 and positive opportunity to work as an agreement state with  
24 the NRC on this package that is now being put together.

25 We are extremely excited about looking at this

1 materials portion of the program. We believe that both the  
2 states and the NRC can move together, and as I have done in  
3 my written comments, that we can work together on this issue  
4 in a very compatible manner.

5           However, I'd like to spend just a few moments on  
6 some areas of concern to the state of Illinois, and that  
7 being the nuclear waste issue, and specifically the spent  
8 fuel transportation and the low-level waste issue.

9           Spent fuel, I believe, will become an issue very  
10 shortly of privatization and regionalization. I believe  
11 that several states will be actively targeted and become  
12 involved in development of interim storage facilities.

13           No single issue could be more divisive than this,  
14 and I believe it will take on the same characteristics that  
15 we have been seeing develop over the last few years in terms  
16 of the compact system in the lo-level waste area.

17           Secondly, I would just admonish everyone that we  
18 must be very careful when we delve into the issues of  
19 transportation. I think the MOX fiasco of two months ago is  
20 a perfect example of how we must be extremely careful how we  
21 address this.

22           As unimportant as it may be to us, at the local  
23 level, we can expend an incredible amount of time dealing  
24 with these issues, and become involved in issues that  
25 certainly, you know, need to be addressed more rationally

1 than they were. I use the MOX as the primary issue at this  
2 point.

3 Finally, low-level waste is moving away from the  
4 issue of developing disposal facilities, towards the arena  
5 where storage is going to become the facility of concern.

6 However, the duck that calls itself a short-term  
7 storage is one issue that will have to be addressed, because  
8 I believe it is taking us down a road that could be very  
9 dangerous and misleading to the public.

10 Facility storage will also become very contentious  
11 as part of the risk-informing process, so that what we are  
12 saying as the state agencies, is that I think we need to  
13 readdress ourselves. We need to jointly look at these  
14 issues and see how we are going to approach them, because as  
15 South Carolina moves towards their decreasing capacity and  
16 whether or not we have a positive outcome in Utah, the  
17 storage will become the issue, and I think we need to  
18 address that sooner than later.

19 Having said that, I would like to thank you for  
20 this opportunity, and it is certainly a pleasure to be back  
21 working with the NRC on these issues.

22 CHAIRMAN MESERVE: Good. Thank you very much.

23 Mr. Lochbaum?

24 MR. LOCHBAUM: Thank you. Good morning. Slide 3,  
25 please?

1 I guess we'd like to offer a third set of  
2 vocabulary here. We would call it outlet regulation instead  
3 of risk informed regulation or safety focused regulation,  
4 but I think no matter what you call it, or what vocabulary  
5 you want to use, we are all talking about the same thing and  
6 I have a full appreciation for that because at least as far  
7 as the two panels that were represented here, I have the  
8 smallest staff, and it is very important for UCS what we  
9 focus on the right issues or what we think are the right  
10 safety issues, because we don't have a lot of excess Staff  
11 to devote things on, so I think I have an appreciation for  
12 the concept involved. It is the implementation that I don't  
13 appreciate.

14 I think the best way to do that would be look at  
15 Slide 8 and look on the areas where we focused most of our  
16 time in the past year and in fact the past 22 years. I  
17 would like to group those into three big categories. One is  
18 allegations, which are safety issues raised either by plant  
19 workers or by members of the public, and examples of where  
20 those have actually led to safety improvements in the recent  
21 past are the Thermo-lag problems which were first identified  
22 in 1992 by a plant worker; Maine Yankee's RELAP flap, which  
23 I am using that term from a bumper sticker or a tee-shirt  
24 that plant workers had. That is not our characterization of  
25 it. Finally there was the ice condenser problems that were

1 identified again by a plant worker.

2           These things have led to real, tangible safety  
3 improvements at nuclear power plants in this country.

4           The second category, although it is labelled  
5 number one, is 2.206 petition process, which in recent years  
6 has led to the identification and correction of spent fuel  
7 pool and safety culture problems at Millstone, the  
8 identification of raising the issues of potassium iodide,  
9 again the problems at D.C. Cook with its ice condenser,  
10 Catawba's harassment of QC inspectors over a period of time,  
11 and reactor operation with failed fuel, if we could get the  
12 actual issues addressed.

13           Slide 9 talks about the third category, which is  
14 differing professional opinions, which are safety issues  
15 raised by the NRC's own staff. Two examples are the OSRE  
16 program and steam generator tube rupture issues.

17           UCS in the past three years I have been with UCS  
18 and in Bob Pollard's time before that expended considerable  
19 resources in these areas because they had what we felt were  
20 a direct tie to safety improvements, safety enhancements.

21           We think under the current risk informed  
22 implementation plan these areas are not being considered or  
23 given the same consideration that we think they should be.  
24 We think the biggest oversight is how the NRC is not really  
25 dealing with nuclear whistleblowers. Slide 10, please.

1                   Unfortunately, I have a correction to Slide 10.  
2                   George Sutton moves from victim at Perry to formerly at  
3                   Perry or will in the near future. These are a list of  
4                   people we have dealt with over the years who have raised  
5                   safety issues and have paid for that with their careers, and  
6                   we think that is too high a standard for nuclear workers to  
7                   be faced with.

8                   We think in all of these cases and others the  
9                   Nuclear Regulatory Commission Staff did not serve these  
10                  conscientious workers well, and in a larger sense they  
11                  didn't serve the people living around the plants, the way  
12                  these issues were raised.

13                  We think the risk informed implementation program  
14                  basically doesn't consider enhancements to make it easier  
15                  for nuclear workers to raise safety issues. Slide 11.

16                  What we think the risk informed plan omits is  
17                  these three area, is there should be more emphasis placed on  
18                  fixing the OI/OE/OGC problems that prevent the agency from  
19                  properly protecting whistleblowers, and by protecting I am  
20                  not saying step in there and prevent them from suffering  
21                  harassment and intimidation but they need to be afforded the  
22                  rights that are given them under the laws.

23                  We also think the agency needs to improve the  
24                  timeliness and quality of both DPO and allegation responses.  
25                  That has been a problem and continues to be a problem in our

1 view.

2 Finally, the NRC needs to fix the 2.206 petition  
3 process. That issue was raised not first but most recently  
4 by UCS in 1992 with a report. There were workshops, the NRC  
5 conducted workshops in 1993, and here we are seven years  
6 later and the program still isn't workable.

7 The Calvert Cliffs license renewal could go  
8 through in 24 months and the 2.206 protection process is  
9 eight years running. That seems to me to be a focus in the  
10 wrong areas. Slide 12, please.

11 What we think is rather than focusing on areas  
12 where at best safety is maintained we would prefer to see  
13 more attention and resources spent on areas where safety  
14 could actually be improved. We think with the current plan  
15 the economic interests of the industry are being placed  
16 ahead of public and worker safety and Slide 13, which would  
17 probably be provocative, but I think in the last year former  
18 NRC Commissioner Peter Bradford, who is on the UCS board,  
19 has stated that at no time since the Three Mile Island  
20 accident has the NRC been retreating at a faster pace from  
21 regulation, from its regulatory obligations.

22 In the last week Paul Leventhal, Paul Gunther, Jim  
23 Riccio, myself and others have indicated in various forms  
24 and levels of stridency that the NRC's focus isn't in the  
25 right area. I don't think we are all wrong. Perhaps in the

1 levels of stridency perhaps we are wrong, but as far as the  
2 issues, I think we do have a comment.

3 I think the focus is not in the right areas, which  
4 is not to say that any of the issues in the risk informed  
5 implementation program are wrong. It is just not complete.  
6 There are areas that need to be added to that where safety  
7 has actually been improved in the past and would be improved  
8 in the future if these processes were fixed. Thank you.

9 CHAIRMAN MESERVE: Mr. Floyd?

10 MR. FLOYD: Thank you. Good morning, Chairman,  
11 Commissioners. It is a pleasure to be here this morning and  
12 talk to you about a topic that is of great interest to the  
13 industry. Dave Helwig, Senior Vice President of  
14 Commonwealth Edison and Chairman of the Risk Informed  
15 Regulation Working Group, was originally scheduled to make  
16 this presentation. He sends his apologies and regrets that  
17 he was called out of the country on business just in the  
18 last few days and is unable to do that, but he wanted me to  
19 assure you that he is personally dedicated to this effort.  
20 If I could have Slide 2, please.

21 I won't dwell on this list at all in the interests  
22 of time. The purpose of this slide really to point out that  
23 the use of risk insights both on the part of the plants and  
24 on the part of the regulator is not a new process at all,  
25 that there is a tremendous foundation that has already been

1 laid for the application of future risk insights both in the  
2 regulations and continuing within the utilities themselves.  
3 If I could have Slide 3, please.

4 We see great potential for risk informed  
5 regulation. First and foremost, we think it does provide a  
6 consistent basis for plant activities. The agency we think  
7 has done an excellent job of communicating to the public  
8 under the new oversight process a framework that is very  
9 clear and easily understood by the public for what the  
10 agency believes is the important focus in oversight, and we  
11 are hopeful that this effort to risk inform the regulations  
12 will result in great consistence between where the agency  
13 applies their inspection resources and what the regulation  
14 says it is important to inspect and to look at.

15 Without dwelling on all of these bullets, I will  
16 move down to the fourth bullet -- support the evolution of  
17 tools and technologies.

18 From our perspective we really see the application  
19 of risk insights is a market-driven process, and it really  
20 builds off successes. As we see more success in this area  
21 there is more willingness on the part of the industry to  
22 develop additional technologies to improvement the  
23 capabilities in this area and success just begets further  
24 success.

25 The bottom line of what we are after in this is to

1 optimize the plant operation. This is the endpoint that we  
2 believe would provide a consistent basis for plant  
3 operations. Slide 4, please.

4           There are some challenges for regulatory reform,  
5 however. First and foremost, how do we translate some of  
6 the incremental successes that we have had in risk informing  
7 the regulations into large scale reform?

8           Option 2, as originally framed, has over 30  
9 regulations identified in the initial scope. This  
10 represents a fairly quantum leap over the present regulatory  
11 applications that have been undertaken. This is not a  
12 criticism. This is the same list that we came up with and  
13 we think developing that broad scope list was very important  
14 in being able to get a good understanding of what are all  
15 the implementation issues that are going to have to be  
16 addressed and just how difficult and complex is it.

17           We think now it may be time to stand back and look  
18 at a more phased approach, which I will talk about just a  
19 little bit in a few minutes.

20           Achieving adequate definition of the process and  
21 outcome for the pilots to succeed -- right now, because of  
22 the state as to where the project is, it is difficult to  
23 estimate either the implementation costs or the benefits  
24 that will be realized from going down this path and  
25 therefore it is difficult to make it a business decision on

1 the part of the plants to engage in the pilot activity.

2 The process is proceeding however. We have had  
3 several meetings with the Staff that we think have been very  
4 productive. Yesterday we gave them a draft guideline that  
5 is not a complete guideline. We hope to have the remaining  
6 sections complete by the third week in April and be able to  
7 present that to the Staff, so there is a lot of work going  
8 on that is providing more certainty to the process as we  
9 proceed.

10 The bottom line is we think we need to develop a  
11 pragmatic approach. The fear that is out there on the part  
12 of many licensees is that this effort may involve a  
13 relicensing of the plant, and, after all, the plants are  
14 already built and licensed, and if we dramatically change  
15 the regulations things will be just too complex and too  
16 confusing and therefore there will be disincentives to  
17 proceed down this pathway.

18 We believe that what we really need to do is build  
19 on the previous successes and the framework. For example,  
20 the maintenance rule and the risk categorization that was  
21 conducted under the maintenance rule certainly puts  
22 utilities in good stead to do this on a broader scale. We  
23 believe that the value of the PRA is in the insights that  
24 are gleaned from the PRA, not in the bottom line numbers  
25 themselves.

1 I know there is a lot of concern about the quality  
2 of the PRA and how much confidence can I have in the  
3 numbers. The guideline that we provided to the Staff  
4 yesterday, the very first step in the decision process is  
5 the particular component, structure or system adequately  
6 modeled in the PRA such that you have confidence for it, and  
7 if not, it kicks you out of that process into another  
8 process, which relies upon a blended approach looking at  
9 deterministic insights, operating experience, and other  
10 insights from the plant staff as to what the risk importance  
11 of those components are, so there is a way we believe to  
12 take a pragmatic approach without having a very complete and  
13 robust PRA in all aspects. If I could have the next slide.

14 This is really what we are talking about now is  
15 PSA quality. We think the blended approach in Reg Guide  
16 1.74 is the appropriate approach. Again we recognize that  
17 the PRAs do not cover everything. The state of the  
18 technology is not capable of covering everything, and even  
19 when we try to in certain area, the uncertainty bands get  
20 fairly large in the areas where we don't have complete  
21 knowledge, and it makes it difficult to use the tool in a  
22 very metrics-specific application.

23 The industry certification or consensus  
24 standards -- all of the NSSS Owners Groups now have a  
25 process whereby they will complete the certification of all

1 the plants, a peer certification process, by the end of  
2 2001. NEI has just recently compiled a document called  
3 NEI-00-02 that is a composite of the various approaches used  
4 by the four NSSS Owners Groups in the peer certification  
5 process. We are certainly willing to and will in the very  
6 near future submit this document to the NRC for Staff review  
7 and we would encourage the Staff to participate in some of  
8 the remaining peer review processes that are out there so  
9 that they can better understand how this document is being  
10 implemented by the individual plants and just how effective  
11 the peer review process is.

12 Despite the limitations of the PRA tool, and there  
13 are limitations of it and you have to be careful how you use  
14 it, we think it is the best tool that is out there for  
15 reflecting the reality of what it is important to pay  
16 attention to.

17 We think that the maintenance rule (a)(4)  
18 provision and the oversight process both will spur  
19 additional interest in improving the risk tools that are out  
20 there. Slide 6, please.

21 Option 2 observations -- as I said, the number of  
22 candidate regulations we think is ambitious and we would  
23 suggest a smaller subset of regulations. The external  
24 events, fire, seismic and shutdown, are categorization  
25 challenges for some of the reasons that I mentioned. Most

1 of the plants have not conducted detailed PRA models for  
2 these and when you get into some of these areas the  
3 uncertainty is quite large, which makes it difficult to  
4 develop component-specific importance measures.

5 The other issue that is going to be very paramount  
6 to the overall success of this endeavor is what is the  
7 ultimate treatment. Categorization is one issue. Treatment  
8 is the next. What is the ultimate treatment for the items  
9 that will fall into the RISC-II category, which are those  
10 items today that are not perhaps fully covered by the  
11 regulations but which nonetheless risk important, as well as  
12 the items in RISC-III, which are items that are fully  
13 covered by the regulations which risk insights are telling  
14 us are not as important as we thought they might have been.

15 South Texas Project has an exemption right now  
16 before the agency which would provide a proof of concept of  
17 what is the proper blend between RISC-II and RISC-III and  
18 what are the overall benefits that can be achieved from that  
19 approach. I think the industry is anxiously awaiting the  
20 outcome of that proof of concept from South Texas.

21 Top industry priorities for Option 2 on Slide 7 --  
22 this is a possible mix or reduced set of regulations that we  
23 would think would be very effective in pursuing under Option  
24 2. We think each one of these regulations represents a very  
25 clear set of benefits that most utilities can understand and

1 see. We think they have the best chance of success because  
2 they are most amenable to the state of where the PRA  
3 technology is today and the risk metrics that are envisioned  
4 to be used.

5 We think success in these areas would build  
6 support for expansion into the other areas and expansion of  
7 the technology to support it.

8 Slide 8 -- Option 3 Priorities -- we would also  
9 propose a phased approach for this area as well. We think  
10 the immediate focus ought to be on the existing efforts to  
11 risk inform fire protection and to move forward with the  
12 hydrogen combustible gas control rule, 10 CFR 50.44,  
13 following the San Onofre exemption.

14 Beyond that, we have conducted an industry survey  
15 of which the results we provided to the Commission, and the  
16 top priority we received from the industry for a technical  
17 regulation is the ECCS regulation 50.46. We see a wide  
18 range of benefits to that regulation. It affects many  
19 aspects of plant operation, including reloads, emergency  
20 diesel generator testing and loading, and numerous other  
21 tests and surveillances that are down at the plant site.

22 Again, success and benefits on those earlier  
23 applications will only spur further interest to look more  
24 broadly.

25 In conclusion, on Slide 9, we seek overall a

1 pragmatic approach that builds on the very extensive  
2 existing efforts that have gone on to date. We think that  
3 such an approach would provide incentives to evolve to a  
4 more risk informed regulatory approach on the part of the  
5 industry and every successful action should improve the  
6 plant's state of knowledge and the overall safety of the  
7 plant.

8 We think the Staff has done an excellent job of  
9 developing the proposals to date. An awful lot of thought  
10 and work has gone into it and we really appreciate that. We  
11 think now it is up to the industry to make it workable from  
12 the industry's perspective and to work closely with the  
13 Staff and figure out how to implement this.

14 Thank you very much.

15 CHAIRMAN MESERVE: I'd like to thank all of you  
16 for your comments. Let me turn to my colleagues questions.  
17 Commissioner McGaffigan?

18 COMMISSIONER MCGAFFIGAN: Maryann, I'm going to  
19 start with you, because I mentioned in the last panel -- as  
20 a Commissioner listening to today's presentation, I sort of  
21 feel the sand shifting around me. Things have really  
22 changed enormously in a few months.

23 You pointed out that NEI had submitted a document  
24 some time ago. I think Mr. Floyd may have been referring to  
25 the same document where they did at one point -- I mean, you

1 can interpret what they said then as do this comprehensive  
2 list of rules under the special treatment requirements all  
3 at once. That's how I interpreted it at the time.

4 Now they're saying, taking a more gradualistic  
5 approach. The SECY 256 presumed that there were going to be  
6 pilots fairly soon. People are trying to make cost/benefit  
7 calculations, and maybe that's going slower than we  
8 expected.

9 There have been a lot of changes, and I'd  
10 respectfully suggest that many of the things that you're  
11 asking the Staff to do at the moment, if I were a staffer  
12 and not a Commissioner, I would toss up my hands and say  
13 it's impossible.

14 We really are going through this and inventing it  
15 as we go along, and we cannot -- you suggest that we need a  
16 rulemaking plan and it will say on date X that we'll  
17 complete the rulemaking. We aren't even sure at the moment  
18 what the rulemaking is.

19 I mean, the PRA quality issues, the Staff talked  
20 about earlier with the Commission, and the Commission says  
21 it's important.

22 I think part of Mr. Floyd's presentation, the way  
23 I read it, is, he's seeing that that's a very difficult  
24 issue when he's looking for the low lying fruit from the  
25 industry's perspective, as to where you can get by with the

1 quality that exists today.

2 And that's a pragmatic approach. He's  
3 recommending it. It's not one that Staff has an opinion on  
4 yet.

5 But I would just respectfully suggest to GAO, we  
6 don't have -- you know, in Pentagon, which I dealt with when  
7 I worked for Senator Bingamman for 14 years, they have lots  
8 of Lt. Colonels and Majors and whatever who can write  
9 five-year plans and satisfy GAO. But the second, third,  
10 fourth, and fifth years of those plans usually are  
11 worthless, from my experience.

12 We don't have enough Lt. Colonels and Majors here  
13 to turn out plans that don't make any sense. If you have  
14 any response to that, I'd be interested.

15 MS. KRUSLICKY: I can perfectly agree with you,  
16 however, some of your comments, I think, demonstrate why you  
17 probably do need some sort of planning document to help to  
18 sort of direct and guide all of your thinking.

19 The Staff generated SECY 0062 and that's only one  
20 small piece. It doesn't include an NMSS, it doesn't include  
21 all the waste issues.

22 I don't know how you are, but as I mature --  
23 you'll notice that I don't use the O-word, but as I mature,  
24 I find it very difficult to remember a lot of isolated facts  
25 in a lot of different documents. It would be nice, I would

1 think, from your standpoint and from good business practice  
2 standpoint, to at least have something from which you are  
3 making your decisions.

4 Yes, as you get in the outyears, the data is going  
5 to get soft, the resource estimates are not going to be as  
6 precise as they would be for an effort that is ongoing now  
7 or may be undertaken in the next fiscal year.

8 But with everything that is going on in this  
9 Agency, as I said, you have set a course for yourself that  
10 is extremely aggressive. How are you going to juggle and  
11 keep all the pieces together and know that you're making the  
12 correct priority decisions if you haven't at least laid out  
13 something to help guide you?

14 COMMISSIONER McGAFFIGAN: I think that my reaction  
15 to that is that it is -- given how much things are changing  
16 -- and I think the Staff -- I suspect the Staff has some  
17 sense of what they're trying to do at Staff level.

18 But given how much things are changing, it's very  
19 hard to plan even four months from now, let alone years from  
20 now. Yes; we need some information. I actually feel we  
21 have enough.

22 I used to plan for Senator Bingaman and we did the  
23 Defense bill. I did it on one sheet of paper.

24 I divided it up by Subcommittee, and this is what  
25 we're going to go do, and then everything else, he allowed

1 me to have in my head.

2 And I'd tell them what we're doing, where we were  
3 making progress, where we weren't making progress. I mean,  
4 I'm a single resource and I have to decide where to apply my  
5 minutes as opposed to applying lots of minutes.

6 But I am not disappointed with what the Staff has  
7 given us thus far, given the uncertainty in which they are  
8 trying to do it. I would think the most important part of  
9 the plan at the moment where I may agree with you, is that  
10 we need to know where the uncertainties are.

11 You know, this rulemaking is dependent on having  
12 an ASME standard, which, by the way, is going to come in a  
13 year late, or maybe it isn't dependent on an ASME standard.

14 We need, I think, a good discussion in the plan as  
15 to where the uncertainties are, because at four-month  
16 intervals, they become obvious. That might be useful,  
17 because you know what is high risk and what isn't high risk.

18 But the detail that you seem to be looking for,  
19 I'm not sure is possible.

20 In order to have a second with Mr. Lochbaum, I'm  
21 going to cut that off and get to David.

22 There's almost a disconnect, I think, with your  
23 testimony and all the work on the risk-informed oversight  
24 process. We have probably put an awful lot of resources in  
25 there, and I think you agree that those resources were

1 reasonably well spent, although you also say the proof is in  
2 the pudding and whether we -- that was -- there's no mention  
3 of that here.

4           Where do we put our resources in order to get  
5 safety improvements, and you list some things. But you  
6 don't even list the new oversight process as a place where  
7 we might want to put a few resources to get it right.

8           Why don't you respond to that first?

9           MR. LOCHBAUM: In my oral remarks -- and I very  
10 carefully said I spent more time on allegations to 2.206 and  
11 DPOs than I have on other issues.

12           Our top priority for the past year was the revised  
13 reactor oversight process, because we think it's very  
14 important. Even though it's our top priority, I spent less  
15 time on that than other areas, because the other areas were  
16 emerging issues, and they needed, they demanded that time.

17           We're hopeful that the revised reactor oversight  
18 process will have a back door emphasis on these other areas.  
19 The safety issues at specific plants will be harder not to  
20 address in the future if this program is as successful as we  
21 think it will be.

22           Despite that, we still think these process areas  
23 need to be improved. The NRC needs to spend the resources  
24 on those areas.

25           COMMISSIONER McGAFFIGAN: Okay. The 2.206

1 petition area is an area where we're expending resources at  
2 the moment. There have been public meetings with you and  
3 other folks. There is a process underway under which we're  
4 going to get another paper from Roy Zimmerman and the Staff.

5 Rule changes, I assume you're proposing some in  
6 the process. I have not been privy to the interactions.

7 What is it that we're not doing in that area? I  
8 think it's unfair to say that Calvert Cliffs took 24 months  
9 and we haven't changed 2.206. We respond to individual  
10 2.206 petitions like your River Bend Fuel petition, much  
11 faster.

12 You're saying there is a process issue here that  
13 we didn't fix. What is that we need to be doing in the  
14 2.206 area that we're not doing at the moment?

15 MR. LOCHBAUM: The focus of the Staff's effort in  
16 the 2.206 area is increasing the speed from the allegation  
17 to the Director's decision. There have been -- we and other  
18 petitioners have had problems with this timeliness, but  
19 that's not the only one.

20 There is the quality and the fact that we don't  
21 have an appeal. We have to -- whether it's a speedy  
22 decision or not, we have to like the answer, and we just  
23 don't.

24 COMMISSIONER MCGAFFIGAN: I'll just say one last  
25 thing that's more a statement. Peter Bradford is getting

1 quoted routinely now, and I'm not aware that he has seen a  
2 Commissioner recently or had a very large involvement in our  
3 processes. Maybe being on your board gives it to him.

4 But if he wants to come in and discuss with  
5 Commissioners, I certainly will volunteer myself to discuss  
6 with him, his allegation that we're retreating at a faster  
7 pace from our obligations than ever before.

8 I think that that does a disservice to the  
9 Commission. It's ridiculous, and if -- you said you can't  
10 all be wrong. Well, the whole industry was -- the whole  
11 public interest community was wrong on Y2K.

12 I think you tried not to associate yourself very  
13 much with some of these ridiculous petitions we were  
14 getting, rulemaking petitions, you personally.

15 But I think you probably ended up signing on to  
16 some ridiculous thing. You all can be wrong. And I think  
17 that this effort at risk-informing or safety focusing has  
18 been going on for a long time.

19 It makes sense when you have limited resources.  
20 And the public interest community, since you hate us so  
21 much, you don't exactly go to bat for our budget up there,  
22 you know, because why give people who are going to only mess  
23 things up, more resources to mess it up, I guess, is your  
24 point of view.

25 Since we don't get very much help on our budget,

1 we're doing the best we can with the resources we have to  
2 focus on safety. That's our goal, and if Mr. Bradford wants  
3 to talk about it, he's welcome to.

4 MR. LOCHBAUM: Okay.

5 CHAIRMAN MESERVE: Commissioner Dicus..

6 COMMISSIONER DICUS: Okay, I will have a brief  
7 statement and question to GAO, and then I have one for the  
8 NEI.

9 Generally, I think your insights and the comments  
10 you have made are pretty well on target, and I appreciated  
11 them.

12 There are a couple of things I do want to bring  
13 up, and associate myself with Commissioner McGaffigan's  
14 concern on just how much can we do all at one time? I'm  
15 looking at your Slide 7 where you say NRC cannot wait until  
16 the next iteration to plan to address the missing elements.

17 I don't think we can do it all at one time. I  
18 think what the Staff has got to do is prioritize what we  
19 need to do first. We've talked about the importance of the  
20 PRA, the standard, and things of that nature.

21 So I appreciate what you're trying to say with the  
22 complete document, but I think we will be there, but we're  
23 going to have to go there probably in some steps. It's a  
24 resource issue and there are other things that we need to  
25 do.

1           The other thing you said on Slide 5, identify as  
2 many activities as NRC can reasonably anticipate, and you  
3 heard me caution the Staff. Let's have a plan and not a  
4 listing of activities, so we want to be sure we don't too  
5 much emphasize the activities at the risk of the plan.

6           And, Mr. Floyd, on your Slide 5, where you talk  
7 about PRA, I was never quite clear if you agree there should  
8 be a PRA standard or not, or if you're willing just to go  
9 with the industry certification. I need a little  
10 clarification there.

11           MR. FLOYD: We have no objections to an industry  
12 standard at all. We agree that there does need to be some  
13 standard. We're not in a position today to embrace the ASME  
14 PRA standard because it hasn't been completed and we don't  
15 know exactly what it looks like.

16           We think that the current version of it is headed  
17 in the right direction, where it does acknowledge that the  
18 PRA certification process certainly addresses or could  
19 address a number of the elements which are identified to be  
20 important in the ASME PRA Standard.

21           And if the final document comes out that way for  
22 the application that it's intended for, then it would look  
23 like to us that it would be a good standard.

24           COMMISSIONER DICUS: If it didn't, where would you  
25 be?

1 MR. FLOYD: Well, I guess it would depend on the  
2 areas where it didn't. But if it fundamentally required  
3 what we would think would be a burden that didn't add a lot  
4 of value, and we thought that the current certification  
5 process, which was already completed and resulted in what we  
6 felt was an adequate level of quality for the area that the  
7 insights are being applied to, then we would have a  
8 disagreement with it.

9 COMMISSIONER DICUS: Okay, thank you, Mr.  
10 Chairman.

11 CHAIRMAN MESERVE: Commissioner Diaz?

12 COMMISSIONER DIAZ: Yes, thank you, Mr. Chairman.  
13 Maryann, I guess you prefer to be called.

14 MS. KRUSLICKY: I think that's easier for  
15 everybody.

16 COMMISSIONER DIAZ: I agree. I think you have  
17 seen what one of our main problems is. That is, we have  
18 multiple inputs that we have to process in real time and try  
19 to obtain a single output out of that.

20 And that sometimes is quite difficult. You know,  
21 one of the problems and blessings of risk-informed  
22 regulations or PRAs is that they are, by nature, integral  
23 techniques. They have to take into account, practically  
24 everything that you can put your hands around.

25 And that creates the problem that I call the issue

1 of proliferation. And proliferation, then you have to look  
2 at it and say, okay, I'm going to coverage here, I'm going  
3 to diverge here because I cannot achieve convergence.

4 And then, of course, your statement that a plan  
5 would help, I think we all agree on. My point is that if we  
6 have a plan, we have to be able to change it in real time,  
7 quite frequently.

8 And then we will be criticized because we're  
9 changing the plan.

10 MS. KRUSLICKY: Can I comment on that?

11 COMMISSIONER DIAZ: Please.

12 MS. KRUSLICKY: Actually, I think we had always  
13 intended, and when Ms. Jones, the Associate Director  
14 testified, I always said that we would anticipate that this  
15 plan would be a living document, subject to change and  
16 modification as conditions warranted.

17 I notice that the Staff proposal was to provide a  
18 plan to the Commission every six months. I might suggest  
19 that you would consider at least for the short term, maybe  
20 every three months, just to see, do we really have to change  
21 it? Can we wait? Is six months better?

22 I know Commissioner McGaffigan is down there  
23 shaking his head, no. I'm just saying that at least in the  
24 initial stages, because so much is uncertain, and as you  
25 just pointed out, NEI is changing its mind. Four months ago

1 something was fine, and now four months later, it's not.

2 It is just something to consider.

3 COMMISSIONER MCGAFFIGAN: If I can just make a  
4 comment, there other processes whereby the Commission gets  
5 informed other than a burdensome planning -- the TA  
6 briefings and that sort of thing are mechanisms that are  
7 less burdensome on the Staff than producing inch-thick  
8 documents and it doesn't help everybody else but it helps  
9 us.

10 COMMISSIONER DIAZ: Which was really my next point  
11 is that I cannot agree that we don't have a sense of where  
12 we are going. It might not look like it to somebody that is  
13 removed from here, but I can assure you that we have a  
14 reasonable sense of where we are going, however, not enough  
15 that we can make final decisions, which is important, but we  
16 do have the sense and the Staff does provide us with that  
17 sense, but it is very difficult unless you are inside of  
18 this building, especially on the 17th and 18th floor, okay,  
19 to realize the magnitude of the information that we get and  
20 the multiple ways in which we get informed.

21 I think that is basically -- I can understand  
22 somebody looking from the outside and not realizing that but  
23 I want to assure you all that we have a reasonable sense of  
24 what we are doing and what we are not doing, and I think  
25 there are improvements in the process, so we appreciate your

1 testimony.

2 Mr. Ort cigar, I just have a quick question. You  
3 seem to put your efforts in the area of transportation and  
4 waste and is there something that you particularly see that  
5 we could, you know, reasonably tackle in the foreseeable  
6 future that will bring up your concerns into the forefront  
7 of what the Commission is doing?

8 MR. ORTCIGAR: Well, listening to this discussion,  
9 you have so many things on the plate that it is going to be  
10 hard to move some of these issues along. I think what I was  
11 saying though -- in reading the sections in the papers that  
12 the Commission has received, it appears to me, and maybe I  
13 am incorrect, but it appears to me that particularly on the  
14 waste issue Staff seems to feel that they have gone about as  
15 far as they need to go and there doesn't need to be new  
16 direction.

17 I may be misreading that, but there --

18 CHAIRMAN MESERVE: I think you are.

19 MR. ORTCIGAR: I hope I am, but there seem to be  
20 some key phrases in there when they were talking about rules  
21 and guidance that are in place that they are mature enough  
22 and that, you know, we need to keep those in place and I  
23 just think we need to refocus our thinking.

24 I am not certain we can do anything in the short  
25 term. I am not certain with what you have on your plate

1 right now we should be addressing further issues, and I am  
2 hearing from GAO that you need a plan just for what you  
3 have.

4 I was just trying to bring up a level of awareness  
5 here, Commissioner.

6 COMMISSIONER DIAZ: Thank you so much. Mr.  
7 Lochbaum, I think some of the issues have already been  
8 addressed, but I want to focus on the fact that you have  
9 actually, you know, in your presentation today, you actually  
10 make a break within the risk informed implementation plan.  
11 If I read you correctly, and please -- I am sure you will  
12 correct me, what you are saying is that these things that we  
13 are doing you don't have a problem with it, but we are  
14 missing a component, and that component is providing focus  
15 on those activities that will protect those who have valid  
16 complaints on safety and those processes that will assure  
17 that concerns regarding safety are taken, you know, not as  
18 we'll do it next month, but something that has priority, is  
19 that correct?

20 MR. LOCHBAUM: That is a fair assessment. The  
21 vocabulary can easily get lost. We look more to actions.  
22 The emphasis in these areas and what we perceive to be the  
23 deemphasis in these other areas gives us discomfort and we  
24 would like to see that discomfort lessened.

25 COMMISSIONER DIAZ: Okay. I think it's a valid

1 point. I think we have an obligation of the law to make,  
2 you know, visible issues and those things to be properly  
3 taken care of and I think the Commission have taken steps to  
4 do that, but we appreciate your emphasis and I think that we  
5 will take another look at it, because I think it is  
6 important.

7           However, having said that, I think that the issue  
8 that we have been facing is besides those, what do we do to  
9 focus on safety and I think in that sense it is almost like  
10 you have a parallel -- let's call it a risk informed  
11 implementation plan that is a subset which I understand the  
12 importance to you, but I want to tell you that we have not  
13 ignored it, that we are continuing to focus on it, and we  
14 appreciate you bringing it to our attention.

15           Do you want to add anything to it?

16           MR. LOCHBAUM: No. Thank you.

17           COMMISSIONER DIAZ: Okay. All right. Now Mr.  
18 Floyd, I'm sorry --

19           COMMISSIONER McGAFFIGAN: He was hoping to duck.

20           [Laughter.]

21           COMMISSIONER DIAZ: You know, many times when we  
22 meet in here we are tough with the Staff. I just want to  
23 say that I want to get tough with the industry today, and  
24 what I see, and I am probably wrong because I am frequently  
25 wrong is that a certain degree of complacency is creeping in

1 in this area.

2 If I look at your top industry priorities for  
3 Option 2, I can see, you know, and I know that is not what  
4 you are doing, but I can see a certain amount of what the  
5 Commission said we were not going to be doing with this,  
6 some cherry-picking, okay? And I don't think that that was  
7 the intention when we entered into it, and if we start  
8 selecting a series of things because they are already there,  
9 you know, (a) (4) -- we have done the oversight process, all  
10 those things I realize put burden on the industry and maybe  
11 the pragmatism is that burden stabilizes before we get to  
12 the next stage.

13 Well, I think it would be wrong, okay, and it  
14 might not serve this country well if we just do not continue  
15 to take a more holistic look at what are the things that  
16 should be done. Eventually the Commission has manifested  
17 that some of these things will be voluntary and there are  
18 people that will do it and there are people that will not do  
19 it, but, you know, like I said one time, windows of  
20 opportunities open and windows close and you don't know how  
21 long any of this group is going to be here, whether it is  
22 going to be a different perspective, so I just want to make  
23 sure the industry understands that there is a window of  
24 opportunity and unless we move into some areas to do what I  
25 call plant poles the ground, like the quality of the PRA,

1     whichever level we want to do it -- that should be there,  
2     that should be known. It should be established and that is  
3     something that everybody will have to go around, the Staff,  
4     the industry, but it is there, and unless we plant a few of  
5     the things, not only the ones we have done, I would tell you  
6     that I think divergence will take place, multiple paths will  
7     be created and we will not be able to end up in a reasonable  
8     period of time with a good set of regulations that will  
9     serve this country, that will comply with our mission and  
10    that will actually serve the industry.

11             With that small statement, I will invite your  
12    comments on it.

13             MR. FLOYD: Well, actually I think I agree with  
14    you. Our intent in putting those four regulations on Slide  
15    7 was to point out that we think that a smaller set of  
16    regulations to be piloted in a consistent fashion by a broad  
17    number of plants in the industry is probably a better way to  
18    test out the process. I still think, and we discussed this  
19    with the Staff yesterday, we still think it is possible to  
20    develop a 50.69 regulation that identifies all the  
21    regulations that can take the benefit of this approach but  
22    that it is not practical to try to test all those out in the  
23    implementation phase.

24             We think this particular set of regulations to  
25    test during the implementation phase because of their

1 breadth and scope would give you confidence without having  
2 to test each subsequent regulation individually, would give  
3 you confidence that you have a workable process.

4 For example, if you look at the maintenance rule  
5 and technical specifications, the maintenance rule is  
6 probably fairly easy on one end of the spectrum because of  
7 all the work and foundation that has been set in that area,  
8 but if you go over to the technical specifications, that is  
9 probably tougher to do, and if you can do those two ends of  
10 the spectrum there is probably another whole set of  
11 regulations that it kind of bounds and validates in the  
12 interim, so I would agree with you, and that was not the  
13 intent of the slide, to suggest that 50.69 be written to  
14 only say make changes to these regulations.

15 COMMISSIONER DIAZ: Okay, thank you, Mr. Chairman.

16 CHAIRMAN MESERVE: Thank you. Mr. Ortzigar, I  
17 think there is one perhaps misimpression that you have that  
18 I wanted to just correct, and that is that we have a very  
19 partial draft of this plan that is in front of us.

20 It is intended to include and will include in its  
21 next iteration some components that will deal with the  
22 materials and waste area and you have raised in particular  
23 the spent fuel issue, transportation and low level waste,  
24 and we have some initiatives that are under way in at least  
25 some of those areas and those will be encompassed in the

1 next round, and it's something that we do have awareness of  
2 that whole side of the house.

3 As busy as we are with all the reactor things that  
4 you have heard about, we have not forgotten those other  
5 issues.

6 I would like to follow up on one point that was in  
7 your written submission but not in your oral comments but  
8 which intrigued me. You make the observation that with the  
9 growing number of, relatively growing number of materials  
10 licensees that are the responsibilities of states, rather  
11 than the NRC, that we have a situation where more states are  
12 becoming Agreement States, and that the number of Staff  
13 that -- the Staff effort on licensing is going to be  
14 diminished here, and you make the suggestion that perhaps  
15 more cooperative activities with the states in developing  
16 rulemakings would be appropriate. Then you go on to say  
17 that this may also require that NRC reconsider the concept  
18 of compatibility and how it is applied to rules developed  
19 using a cooperative process.

20 I was not exactly clear what you meant. Is it the  
21 idea that if we involve the states more at the front end  
22 that we could then tighten the compatibility requirements  
23 and assure more interstate congruence?

24 MR. ORTCIGAR: Correct. Yes.

25 CHAIRMAN MESERVE: So I must admit I am hearing

1 from materials licensees and certainly so in my private  
2 practice is problems of licensees who operate in several  
3 states having very different requirements from one state to  
4 another, and that the lack of compatibility was a serious  
5 concern.

6 I am pleased to see that or hear that the notion  
7 if we could engage the states more earlier that there would  
8 be an opportunity and agreement that we could tighten the  
9 compatibility requirements.

10 MR. ORTCIGAR: And we would encourage that,  
11 because I think you also have sometimes shopping around.

12 CHAIRMAN MESERVE: Yes.

13 MR. ORTCIGAR: For a license, and I think that is  
14 something that we could control better if we worked together  
15 and then the compatibility issue I think disappears in a  
16 sense.

17 CHAIRMAN MESERVE: Well, there might always, since  
18 it would be a negotiation, there may be some difference of  
19 views that end up reflecting themselves perhaps in some  
20 different approaches in the states. We have the right in  
21 our rules to establish compatibility requirements that limit  
22 that, so we might have the opportunity to exercise those  
23 more perhaps is something you are suggesting.

24 MR. ORTCIGAR: We would support that.

25 CHAIRMAN MESERVE: Mr. Lochbaum, I understood you

1 to -- obviously you focused on allegations, DPOs and the  
2 petition processes being an area that you think that we  
3 should be devoting more attention. As my colleagues have  
4 indicated, this has not escaped our scrutiny and we have  
5 things underway.

6 You also said in your oral statement and I don't  
7 think I found it in your letter that you thought the concept  
8 of risk informing the regulations was okay, but there might  
9 be some problems in implementation.

10 Did I understand that correctly?

11 MR. LOCHBAUM: That is correct. That is our view.  
12 That is -- the risk informed oversight process is under that  
13 umbrella and we were --

14 CHAIRMAN MESERVE: Sure.

15 MR. LOCHBAUM: -- clearly supportive of that  
16 process.

17 CHAIRMAN MESERVE: And we have got a wide number  
18 of other activities that the Staff has identified as ones  
19 that they are contemplating risk informing, and I can assure  
20 you with full involvement of affected stakeholders.

21 Is that process one that is acceptable to you?

22 MR. LOCHBAUM: It has been. We have been involved  
23 in some of them -- for example, risk informed inspection  
24 frequencies for piping, or we have attended some of those,  
25 not seen an issue and not opposed it.

1 I can't say we have looked at all of them but the  
2 process is -- can be sound.

3 CHAIRMAN MESERVE: Good. Mr. Floyd, I have just  
4 one sort of comment, and it is really a fundamental one.

5 I want to make sure that we are on the same  
6 wavelength. You had noted that you see the risk informed  
7 regulatory initiative as one that in the industry's  
8 perspective should serve to improve overall safety. I think  
9 our capacity to be able to do any of this is dependent on  
10 our being able to establish that proposition.

11 One of the items that I know all of us have  
12 emphasized various times when we have talked about this is  
13 that risk informed regulation is going to be and has to be a  
14 dual-edged sword, in that there will be some areas where our  
15 regulations are ones that are excessive and we may cut them  
16 back, but on the other hand, there are going to be areas  
17 that there will be some tightening as well.

18 MR. FLOYD: Exactly.

19 CHAIRMAN MESERVE: In order to -- and then in  
20 aggregate we expect that process would result in improved  
21 overall safety. I think that message is absolutely  
22 essential for us to be able to do any of this.

23 Would you agree with that?

24 MR. FLOYD: Yes, we certainly do. For example, on  
25 the technical specification a disconnect between (a) (4) and

1 the tech specs right now that I think Rich Barrett very  
2 articulately stated, if you listen carefully to what he said  
3 implicit in that was an acknowledgement that there are  
4 instances today in the allowed outage times in tech specs  
5 where your (a) (4) risk evaluation would tell you that it  
6 really ought to be a shorter period of time and in other  
7 cases it would be, no, you could have a longer period of  
8 time to have that equipment out of service.

9 I think the industry certainly recognizes that and  
10 acknowledges that and is willing to do that.

11 CHAIRMAN MESERVE: Okay, good. Thank you very  
12 much, and with that we are adjourned.

13 [Whereupon, at 11:36 a.m., the briefing was  
14 concluded.]

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CERTIFICATE

This is to certify that the attached description of a meeting of the U.S. Nuclear Regulatory Commission entitled:

TITLE OF MEETING: BRIEFING ON RISK-INFORMED REGULATION  
IMPLEMENTATION PLAN PUBLIC MEETING

PLACE OF MEETING: Rockville, Maryland

DATE OF MEETING: Friday, March 31, 2000

was held as herein appears, is a true and accurate record of the meeting, and that this is the original transcript thereof taken stenographically by me, thereafter reduced to typewriting by me or under the direction of the court reporting company

Transcriber: Rose Gershon

Reporter: Mark Mahoney

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# **On Cheaper Regulation**

**David Lochbaum**  
**Nuclear Safety Engineer**  
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**March 31, 2000**

# **What is the NRC's goal?**

**“Risk-informed Regulation” is a term used to describe NRC’s work to revise its regulations and regulatory processes so that the regulatory burden imposed by individual regulations or processes is commensurate with the importance of that regulation or process to protecting public health and safety and the environment.**

**SECY-00-0062, Attachment 2, page 1, footnote 1**

# What?

**NRC wants to save plant owners money by eliminating or scaling back on requirements that do not have a clear and direct safety link. In other words, the NRC seeks cheaper regulations.**

**NRC should call it 'outlet' regulation. Americans *love* outlets and bargains.**

**UCS presentation, slide 3**

# Can the goal be met?



**[O]nly 25 percent of the staff in the Office of Nuclear Reactor Regulation agree or strongly agree that a risk-informed approach will allow them to do their job more efficiently**

**GAO/RCED-00-29, page 13**

## Should the NRC pursue the goal?

[I]t may be very difficult to show that the risk informed changes, in any form, either: (i) will result in a substantial increase in overall protection of the public health and safety or common defense and security, the initial backfit threshold finding; or (ii) are *necessary* for adequate protection.

SECY-98-300, Attachment 4, page 1

What?

**If the NRC staff is 100 percent successful making all its unnecessary risk-informed changes, safety is not likely to increase. At most, the public can hope that safety levels will not be reduced by these unnecessary NRC efforts.**

**UCS presentation, slide 6**

## **What should the NRC do?**

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- ① Instead of changing the opinions of the NRC staff, change the NRC's direction. The NRC staff is right.**
  - ② Instead of wasting FTEs on tasks which are safety-neutral if successful, redirect the resources in areas that have demonstrated tangible safety improvements.**

# Where are the safety improvements?

## ① Allegations:

- ★ Industry's Thermo-lag problems
- ★ Maine Yankee's RELAP flap
- ★ Ice condenser problems

## ① 2.206 Petitions:

- ★ Millstone's spent fuel pool and safety culture
- ★ Potassium iodide (KI)
- ★ D C Cook's ice condenser problems
- ★ Catawba's harassment of QC inspectors
- ★ Reactor operation with failed fuel (if NRC staff will address the actual concerns)

# Where are some more of the safety improvements?

## ③ Differing Professional Opinions:

★ OSRE

★ Steam generator tube rupture

# What is the NRC's safety blind-spot ?

☹ **NRC allows senior plant managers to harass  
and intimidate workers with impunity:**

- 💣 **Vera English, formerly with GE**
- 💣 **Curtis Overall, formerly at Watts Bar**
- 💣 **Neil Aiken, formerly at Diablo Canyon**
- 💣 **Kevin Doody, formerly at Perry**
- 💣 **George Sutton, victim at Perry**
- 💣 **Arnie Gundersen, formerly with NES**
- 💣 **Ann Harris, formerly at Watts Bar**
- 💣 **Becky Green, victim at Indian Point 3**
- 💣 **Allen Mosbaugh, formerly at Vogtle**
- 💣 **George Galatis, Don Del Core Sr., and others,  
formerly at Millstone**

# **Where should NRC devote its risk-informed efforts?**

**In areas where safety is improved when the  
NRC staff is successful:**

- ☺ Fixing the OI/OE/OGC malaise that prevents the agency from protecting whistleblowers**
- ☺ Improving the timeliness and quality of DPO and allegation responses**
- ☺ Fixing the 2.206 petition process (it ain't bent, it's broke)**

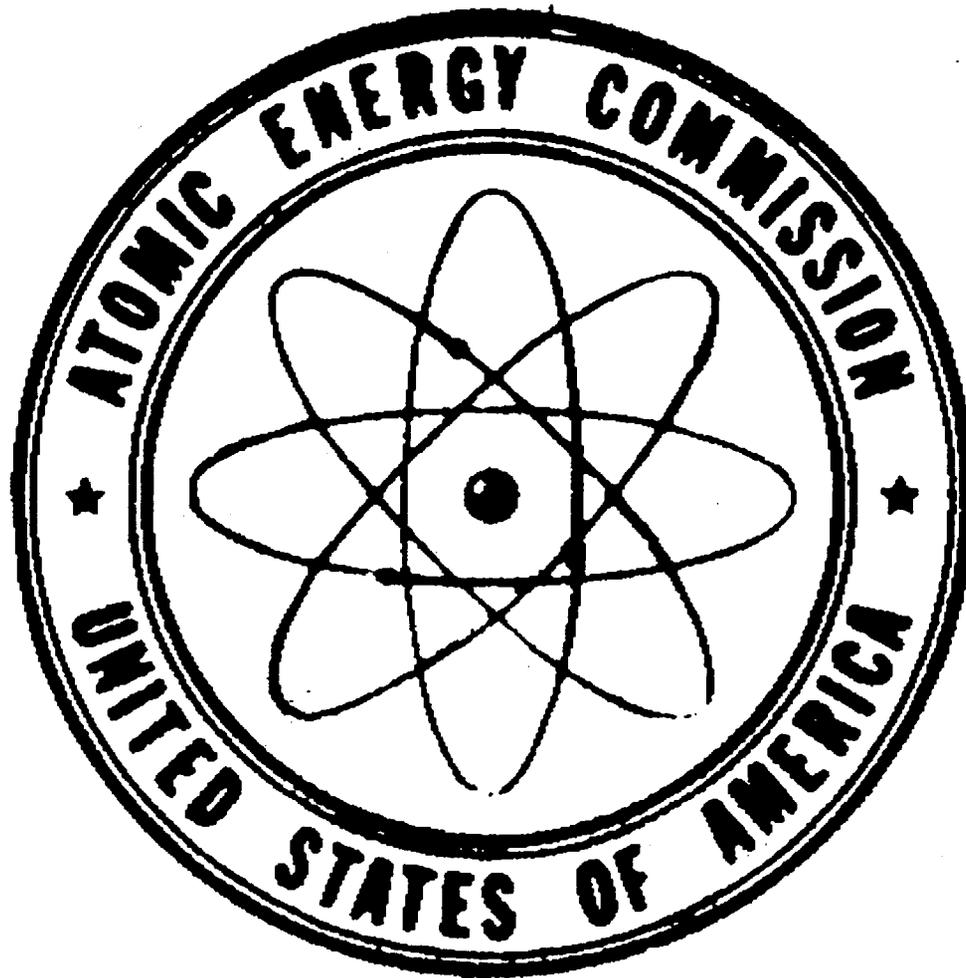
# **Why should NRC refocus its efforts to these areas?**

**Whether the NRC staff is successful or not, it is a far, far better thing to be trying to improve, rather than maintain, safety.**

**If the NRC staff persists with its current priorities, it will be placing the economic interests of the industry ahead of public and worker safety.**

**UNION OF  
CONCERNED  
SCIENTISTS**

# What is the NRC's Future Along its Present Path?



**UNION OF  
CONCERNED  
SCIENTISTS**

March 31, 2000

Chairman Richard A. Meserve  
Commissioner Nils J. Diaz  
Commissioner Greta J. Dicus  
Commissioner Edward McGaffigan, Jr.  
Commissioner Jeffrey S. Merrifield  
United States Nuclear Regulatory Commission  
Washington, DC 20555-0001

**SUBJECT: RISK-INFORMED REGULATION (SECY-00-0062)**

Dear Chairman and Commissioners:

The NRC is clearly placing the economic interests of the nuclear industry ahead of worker and public safety with its so-called risk-informed regulation efforts. Instead of focusing its resources in areas where experience has repeatedly result in tangible safety improvements, the NRC wants to waste those resources in areas where - if the staff is 100 percent successful - safety will not be reduced. This course of action blatantly contradicts the key principle of risk-informed regulations - namely, focusing attention and resources to issues have the greatest safety significance. As country singer Don Williams pointed out in song, "There's no use running when you're on the wrong road." The NRC should stop wasting resources on promoting the nuclear industry's economic viability. Instead the NRC should redirect these resources to fixing the malaise that prevents the agency from protecting whistleblowers, to improving the timeliness and quality of responses to allegations and differing professional opinions, and to fixing the 2.206 petition process.

The NRC knows that it is on the wrong road. The US General Accounting Office reported<sup>1</sup> that:

*[O]nly 25 percent of the staff in the Office of Nuclear Reactor Regulation agree or strongly agree that a risk-informed approach will allow them to do their job more efficiently.*

While the opinions of the NRR staffers are not trivial, the best indication that the NRC knows it is on the wrong road appears in this statement:<sup>2</sup>

*[I]t may be very difficult to show that the risk informed changes, in any form, either: (i) will result in a substantial increase in overall protection of the public health and safety or common defense and security, the initial backfit threshold finding; or (ii) are necessary for adequate protection.*

<sup>1</sup> GAO/RCED-00-29, page 13

<sup>2</sup> NRC SECY-98-300, Attachment 4, page 1

In other words, even if the NRC is 100 percent successful implementing the risk-informed changes, the best that workers and the public can expect is that safety levels will not be reduced. No wonder that the NRR staff is skeptical! They are being directed to devote their skills to preventing safety margin erosions. Up until now, they have worked diligently for better protection of workers and the public.

Improving public confidence is one of the NRC's four objectives, at least on paper. Considering that the majority of the NRC's own employees lack confidence in the NRC's move towards risk-informed regulations, why would members of the public (other than employees of nuclear utilities) have their confidence levels increase? The answer, of course, is that public confidence will not increase. But if the NRC places economic viability of the nuclear industry ahead of public safety, public confidence levels are obviously non-starters for this agency.

If the NRC is truly serious about risk-informed regulation, it will devote more resources in areas where actual safety improvements will be realized than it wastes in areas that merely realize economic pay-offs for the nuclear industry. Actual safety improvements have repeatedly resulted from safety concerns raised by nuclear workers and from issues raised in 2.206 petitions. There are serious flaws with how the NRC handles safety concerns and public petitions. The right road to risk-informed regulation passes through Allegation-ville and Petition-oplis before reaching Cheap-town. These destinations must be added to the risk-informed regulation implementation roadmap.

The NRC's worst safety problem is the agency's complete failure in protecting whistleblowers. The NRC's inactions on whistleblower cases essentially make it an accomplice to nuclear plant managers who violate federal regulations by retaliating against workers raising safety concerns. Former NRC official Harold Denton observed, "the biggest threat from nuclear power is posed by poor management, not by nuclear technology."<sup>3</sup> The NRC is supposed to protect workers and the public from the threat posed by poor management. But the NRC is aiding and abetting the crimes by turning over the names of whistleblowers to plant managers and then looking the other way as the managers illegally make workers pay with their careers for raising safety concerns. The NRC's failure to protect whistleblowers like Curtis Overall, Vera English, Neil Aiken, Becky Green, Kevin Doody, George Sutton, Arnie Gundersen, Ann Harris, Allen Mosbaugh, George Galatis, and Donald Del Core Sr. is the largest "chilling effect" in nuclear history. Current cases show no signs of thawing the agency's "freeze 'em out" policy. The NRC calls plant workers the "eyes and ears" of the agency. The NRC cannot continue to conspire with nuclear plant managers to silence the tongues of these "eyes and ears."

**THE NRC MUST START DOING ITS JOB BY PROMPTLY AND FULLY PROVIDING WHISTLEBLOWERS WITH THE PROTECTIONS AFFORDED THEM BY THE REGULATIONS.**

It is vital that the NRC protect whistleblowers because numerous actual safety improvements have been realized as a direct result of concerns first raised by plant workers. To cite just a few examples from a lengthy list, the fire protection problems associated with Thermo-lag, the small-break LOCA problems associated with Maine Yankee's RELAP flap, and the containment problems associated with the ice condenser issues would not have been corrected absent their identification by nuclear workers.

Plant workers raise safety concerns to the NRC via the allegation program. The allegation program has undergone substantial revision in the past six years, but serious problems persist. Chief among these

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<sup>3</sup> Jo-Ann Greene, "Peach Bottom: A disaster on the doorstep?" *The Sunday News*, October 12, 1986.

problems are timeliness and quality of the agency's response to the concerns. From UCS's own experience with the allegations program and from comments we have heard from workers, the NRC's response is typically slow and often fails to address the real concerns. The NRC would not accept such poor response time and quality in a plant owner's employee concerns program. The NRC should hold itself to this same high standard.

**THE NRC MUST ALLOCATE THE RESOURCES TO ITS ALLEGATIONS PROGRAM NEEDED TO IMPROVE THE TIMELINESS AND QUALITY OF RESPONSES.**

Plant workers are not the only source of safety concerns received by the NRC. The NRC's own staff can raise safety concerns via the differing professional view/differing professional opinion (DPO) process. Examples of safety issues raised by NRC staffers include the OSRE program and multiple steam generator tube ruptures. In the past 18 months, five NRC workers have contacted UCS about safety issues that they felt were being "railroaded" by the DPO process. Other NRC workers have contacted UCS during this period about safety issues that they refused to enter into the DPO process. UCS fully recognizes that NRC workers who used the DPO process successfully are unlikely to contact UCS with that news. But the volume of contacts that we have received strongly suggests that the DPO process needs improvement. The general theme of dissatisfaction with the DPO process mirrors that expressed by plant workers about the allegations program. We are aware of two recent cases in which NRC employees initiating DPOs were 'rewarded' with harassment and intimidation from their NRC supervisors. It is our understanding that the NRC's Office of the Inspector General has at least two ongoing audits and/or investigations into the DPO process.

**THE NRC MUST ALLOCATE THE RESOURCES TO ITS DPO PROCESS NEEDED TO IMPROVE THE TIMELINESS AND QUALITY OF RESPONSES.**

Members of the public can raise safety issues to the NRC via either the allegation program or the 2.206 petition process. Petitions filed under 10 CFR 2.206 forced the NRC to stop ignoring safety problems at Millstone and D C Cook (and would force the agency to stop ignoring safety problems at reactors operating with fuel damage if we could get the staff to address the actual concerns). The NRC knows about problems with the 2.206 process and is pursuing resolution of them at a slower-than-glacial pace. As the author of several 2.206 petitions in the three years that I've been with UCS, I am baffled by how the NRC staff handles them. Their methods of handling petitions changes more frequently than Management Directive 8.11. We have had petitions submitted at around the same time frame handled very differently by petition managers within NRR.

The worst aspect of the 2.206 petition process is that the petitioners cannot appeal Directors' Decisions. For some extremely odd reason, NRC Directors, who are fallible when making decisions about licensing actions requested by plant owners (therefore requiring an appeal for the plant owners), are infallible when it comes to making decisions about public petitions. That's obviously not true. The truth is that the 2.206 petition process clearly reveals the complete and utter disdain that the NRC staff has for the public. The NRC feels that the public can never raise a meaningful safety issue - therefore, there is no need to ever grant a petition or entertain an appeal when a petition is denied. The NRC prefers members of the public to act like plant workers - eyes and ears but no tongues permitted.

**THE NRC MUST REVISE THE 2.206 PROCESS TO PROVIDE THE PUBLIC WITH A VIABLE METHOD FOR RAISING SAFETY ISSUES.**

The NRC claims that safety is its top priority. The agency even puts "maintaining safety" first in most lists of its goals and objectives. But its actions tell a different story. In recent years, a top priority for the agency was the design certification for nuclear plant designs that no single utility in the United States expressed a remote interest in building. Design certification by the NRC was needed to help US reactor manufacturers to market their plants to overseas buyers. Now, a top priority for the agency is to improve the economic performance of nuclear power plants in the United States.

Two years ago, UCS opposed a move by the US Senate to drastically cut the NRC's budget. UCS issued a press release criticizing the Senate for an ill-advised plan that would ultimately lead to what we termed "drive-by regulation." The Senate was not happy - I was called to Capitol Hill to explain our position to both the Majority and Minority staffs.

We opposed the Senate's plan then because, if enacted, it would have prevented the NRC from devoting the necessary resources and attention to ensure adequate safety levels at aging nuclear power plants. The budget cuts would have forced the NRC to trim staff levels significantly. Fortunately, the Senate dropped its plans. Unfortunately, the NRC voluntarily done what the proposed budget cuts would have done. The NRC retained the staff levels, but has chosen to focus their efforts in areas where, at best, safety will not be compromised. Fewer plant inspections are being performed today than just two years ago. And areas that have resulted in actual safety improvements, such as allegations and 2.206 petitions, languish on the back burner while the agency dances to industry's tune.

Risk-informed regulation is supposed to ensure that resources and attention are devoted to safety significant areas. If the NRC is serious about risk-informed regulation, it will make whistleblower protection, improving the allegations and DPO programs, and revamping the 2.206 petition process higher priorities than activities that might save plant owners a few dollars. If the NRC continues to place the economic viability of the nuclear industry ahead of safety issues, it will be returning to the old AEC daze of trying to both promote and regulate.

Sincerely,



David A. Lochbaum  
Nuclear Safety Engineer



**NRC Staff Briefing  
On Risk-Informed Regulation Implementation Plan**

**Presentation by Ashok C. Thadani, Tom King,  
Richard Barrett, Roy Zimmerman, and Martin Virgilio**

**March 31, 2000**

## BRIEFING OVERVIEW

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- ▶ SECY-00-0062 provided a summary of accomplishments, discussion of selected issues and an initial draft of an agency wide risk-informed regulation implementation plan (RIR-IP).
  
- ▶ Briefing will focus on major accomplishments and issues related to implementation of risk-informed regulation:
  - key stakeholder issues
  - strategy development
  - reactor arena
  - materials and waste arena

## KEY STAKEHOLDER ISSUES

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### Issues

### Stakeholders

▶ RIR Strategy:

- safety vs. burden reduction
- communications/buy-in
- where can/should RIR go?

Public

GAO

GAO

▶ Implementation:

- resource implications
- selective implementation

Industry

Industry

▶ Technical:

- quality and completeness of risk assessments
- guidance and tools

Public, ACRS,  
Industry, CSIS

ACRS, CSIS

## STRATEGY DEVELOPMENT

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### Background

- ▶ Need for agency strategy to guide its risk-informed activities recommended by GAO in March 1999 report
- ▶ Committed to in Chairman Jackson's June 18, 1999, response on GAO report

### Purpose

- ▶ To link agency performance goals on risk-informed regulation with implementation efforts (i.e., roadmap)
- ▶ To describe overall agency plans and approach for deciding what, when, and how to risk-inform its activities (i.e., systematic review of Agency activities)
- ▶ To integrate activities and programs (including milestones, communications, and infrastructure needs) to accomplish plan
- ▶ To provide a periodically updated report that documents plans and progress

## STRUCTURE AND CONTENT OF RIR IP

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### Part I: Process for identifying what regulatory activities to risk-inform

- ▶ Apply criteria to decide what regulatory activities to risk-inform. Criteria would be based upon:
  - safety enhancement
  - unnecessary burden reduction benefit
  - effectiveness and efficiency improvement
  - practicality
  - stakeholder interest
- ▶ Use to determine priority, resource needs and schedule.
- ▶ Development of RIR IP should lead to improved public confidence

## STRUCTURE AND CONTENT OF RIR IP (CONT.)

Part II: Description of staff work to risk-inform specific regulatory activities in major arenas

- ▶ Priority
- ▶ Outcomes
- ▶ Guidance
- ▶ Methods, tools, and data
- ▶ Communications
- ▶ Training

## PLANS FOR COMPLETION OF RIR IP

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- ▶ Current draft represents work in progress
- ▶ Develop initial complete version in September 2000:
  - Complete and document regulatory activity prioritization process and apply to specific activities
  - Develop IP for Nuclear Materials Safety and Nuclear Waste Safety arenas
  - Complete IP for Nuclear Reactor Safety arena
- ▶ Solicit public comment/stakeholder input
- ▶ Update semiannually thereafter:
  - Continue to apply prioritization process
  - Update status of programs, tasks, and milestones
  - Living document

## REACTOR ARENA

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➤ Significant progress to date:

- licensing
- plant oversight
- rulemaking
- decommissioning
- special studies
- events assessment

## REACTOR ARENA (CONT.)

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### ➤ Important Issues:

- PRA quality:
  - standards activities
  - industry certification programs
- Guidance and tools:
  - methods/data needs
  - guidelines for defense-in-depth, importance measures, safety margins
  - safety goal policy revision
- Implementation:
  - pilot plants
  - selective implementation
  - prior staff review and approval

# NUCLEAR MATERIALS AND WASTE ARENA

## Key Activities and Challenges:

- ▶ Implementation Process for Risk Informing NMSS:
  - Develop Material Safety Goals
  - Identify Candidate Applications
  - Link to Regulatory Decisions
  - Develop and Adopt Tools
  - Implement New Approaches
  
- ▶ Adjust Current Activities to Risk Inform Ongoing Programs as Necessary. (ByProduct, Medical, Transportation, Fuel Cycle)

## NUCLEAR MATERIALS AND WASTE SAFETY ARENAS

### Implementation Activities:

- ▶ Risk Assessment and Management Task Group Reporting to Office Director
- ▶ Creation of NMSS Steering Group
- ▶ Interaction with ACRS/ACNW Subcommittee
- ▶ Workshop on Material Safety Goals and Screening Criteria (April 25/26)
- ▶ Staff Training (Pilot Program)

# Industry Perspective on Risk-Informed Regulation

March 31, 2000

Stephen D. Floyd

Nuclear Energy Institute



## Existing use of risk insights

- Emergency procedures
- Hardware improvements
- Maintenance management
- New regulations (SBO, ATWS)
- Backfit rule
- Applications (tech specs, ISI, IST)
- Oversight process



## Potential for risk-informed regulation

- Consistent basis for plant activities
- Further improvement to safety focus
- Improve regulatory efficiency and effectiveness
- Support evolution of tools and technologies
- Optimized plant operation

3



## Challenges for Regulatory Reform

- Translating incremental success into large scale reform
- Achieving adequate definition of process and outcome for pilots to proceed
- Developing pragmatic approach - not relicensing plant

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## **PSA quality**

- Regulatory Guide 1.174 approach is appropriate
- Industry certification or consensus standards



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## **Option 2 observations**

- Number of candidate regulations is ambitious
- External events (fire, seismic) and shutdown are categorization challenges
- Regulatory treatment for RISC-2 and RISC-3 is paramount to overall success



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## Top industry priorities for Option 2

- Maintenance rule scope reform
- Appendix B flexibility
- Plant configuration control - technical specifications and 50.65(a)(4)
- Equipment qualification

NEI

## Option 3 priorities

- Complete existing efforts
  - Fire protection
  - 10 CFR 50.44 - hydrogen control
- Give priority to §50.46
  - Wide range of benefits
- Pursue other technical regulations if §50.46 reform is successful

NEI

## **Conclusion**

- Industry seeks pragmatic approach
  - Build on existing efforts
  - Use of generic risk insights where possible
  - Concentrate on achievable results
- Industry must take initiative to enable success

**NEI**

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**GAO**

**Resources, Community, and  
Economic Development Division**

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**NRC COMMISSION BRIEFING**

**Risk-Informed Regulation  
Implementation Plan**

**March 31, 2000**

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- NRC's proposed plan
    - is moving in the right direction to address our recommendation to develop a comprehensive strategy for the transition to risk-informed regulation
    - includes goals, objectives, and milestones
    - demonstrates NRC's commitment to integrate the Results Act with its activities and processes
- 

- NRC's proposed plan
    - is not the roadmap that GAO envisioned
    - does not provide a clear or complete picture about where NRC is going and how it will get there
    - does not include culture change goals and measures to assess accomplishment of the goals
-

- NRC's proposed plan
  - does not include resource estimates
  - does not allow the Congress, Commissioners, staff, industry, and public to see short- and long-term activities "at a glance"

- Suggestions for improving the plan
  - identify as many activities as NRC can reasonably anticipate
  - develop resource estimates
  - estimate time to complete with interim milestones
  - prioritize the activities

- include cultural change goals and performance measures
- provide a one or two page "at a glance" summary or time line
- develop a critical path of activities
- list individual to contact with telephone number and E-mail address

- **Concluding observations: For the plan to be an effective tool**
  - NRC cannot wait until the next iteration of the plan to address the "missing" elements
  - NRC says that it will develop an integrated communication plan. But, an effective implementation plan could serve as a communication vehicle, saving NRC time and resources

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**GAO**

**Resources, Community, and  
Economic Development Division**

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**NRC COMMISSION BRIEFING**

**Risk-Informed Regulation  
Implementation Plan**

**March 31, 2000**

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**GAO**

**Risk-Informed Regulation  
Implementation Plan**

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**GAO**

**Risk-Informed Regulation  
Implementation Plan**

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U.S. NUCLEAR REGULATORY  
— COMMISSION —

*March 31, 2000  
Meeting*

*Comments by  
Director Thomas W. Ortziger*

*IDNS*

**Illinois Department  
of Nuclear Safety**

Mr. Chairman, Members of the Commission:

The Illinois Department of Nuclear Safety (IDNS) appreciates this opportunity to present invited comments on the NRC's Risk-Informed Regulation Implementation Plan.

I would like to begin by praising the Commission and the staff for the extensive efforts that have been expended to date to include the stakeholders and members of the public in the development and implementation of the Risk-Informed Oversight Process. This increased openness not only provides a positive contribution to meeting your performance goal of "increasing public confidence," but will also result in an improved and generally accepted end product.

IDNS supports the NRC in their efforts to move toward implementation of risk-informed and performance-based regulation. The sheer magnitude of this effort is made clear by the ambitious programs described in the Risk-Informed Regulation Implementation Plan being reviewed here today. IDNS believes that safety conscious decision making will be enhanced by the use of risk-informed insights.

IDNS is the State of Illinois agency responsible for independently assessing events at nuclear power plants, and for making protective action recommendations for the public. From the beginning, IDNS has recognized the importance of the NRC's new Reactor Oversight Process. IDNS has supported the NRC's efforts in a number of significant ways. A full-time IDNS inspector participated in the Quad Cities Pilot Plant project. A senior IDNS manager was a member of the NRC's Pilot Plant Evaluation Panel. IDNS staff participate in the NRC's panel for Risk-Informing Regulatory Oversight of Fuel Cycle Facilities. IDNS has a member on the American Society of Mechanical Engineers PRA Standards development committee, and various department staff have participated in a significant number of the NRC-sponsored workshops and meetings regarding the new Risk-Informed Oversight Process.

I complement you on the creation of a Risk-Informed Regulation Implementation Plan. A central document that links the general process for risk-informing regulatory activities to the NRC Strategic Plan is commendable. It will clearly function as a valuable communication tool, in addition to being a detailed guideline for future NRC activities. Hopefully, the plan will eliminate much of the existing confusion regarding the overall process.

While IDNS supports the NRC's efforts, no program changes of this significance and magnitude can be expected to achieve complete consensus. IDNS, therefore, would like to raise the following points that we believe this Commission should consider:

*NRC Performance Goal: Increase public confidence. Strategy: "We will communicate more clearly. We will add more focus, clarity, and consistency to our message, be timely, and present information in the proper context with respect to the risk of the activity."*

The department supports the NRC's efforts to increase public confidence. IDNS is encouraged by NRC's openness in its communications, stakeholder panels, workshops, various surveys, and Website content. However, one essential element that the NRC has not specifically addressed in its strategy is the need to ensure that stakeholders are able to scrutinize the technical basis material for risk-informed activities and decisions. IDNS urges that the public availability of technically scrutable basis material be explicitly included in the NRC's strategy for meeting its public confidence performance goal.

*NRC Performance Goal: Make NRC activities and decisions more effective, efficient, and realistic. Strategy: "we will use risk information to improve the effectiveness and efficiency of our activities and decisions."*

*NRC Performance Goal: Reduce unnecessary regulatory burden on stakeholders. Strategy: "We will utilize risk information and performance based approaches to reduce unnecessary regulatory burden."*

The department supports both of these performance goals and their strategies. IDNS believes, as does the ACRS and others, that to achieve these goals it is necessary that the regulatory process be both coherent and scrutable. To this end, IDNS supports the NRC's initiatives to revise the Commission's Safety Goal Policy Statement. IDNS urges the Commission to incorporate, into its Safety Goal Policy Statement, goals for core damage frequency (including goals for temporary plant configurations) and societal goals for land contamination and other environmental impacts arising from core damage and containment failure. IDNS believes that these additional goals are necessary to achieve coherence in the regulatory process.

IDNS supports the NRC's PRA Policy statement, and encourages its objective to increase the use of PRA technology. IDNS also supports the NRC's efforts to develop PRA standards. IDNS believes that coherence in the regulatory process, including the Maintenance Rule and the new Reactor Oversight Process, can only be achieved with technically defensible PRAs. IDNS urges the NRC to ensure, in its standard development process, that PRAs are complete, scrutable, and uniform in their methodologies for assumptions and success criteria. We urge that the PRAs incorporate new development insights, such as human factors and uncertainty analyses, and that PRAs are maintained current with plant configuration and emergent failure rate data.

While IDNS supports the NRC's goal of reducing regulatory burden, we caution that the process not go too far. We recommend that the NRC continue to seek open input from its inspectors and other stakeholders to ensure that the process meets all of its goals.

As noted above, IDNS supports the NRC's Reactor Oversight Process. One element of that process is the Problem Identification and Resolution (PIDR) system. The NRC properly recognizes that the PIDR system is key to the success of its goals. However, IDNS is concerned that this process has not received the attention it deserves regarding measurement of the success of licensee actions. IDNS encourages the NRC to raise this program to the Performance Indicator level, or to create a specific PIDR Significance Determination Process.

However, IDNS is concerned over the speed with which this new risk-informed oversight process is moving. To date, the NRC has allowed the PRA development process to be voluntary. This means that the NRC must, to some extent, maintain two regulatory systems, one deterministic and the other risk-informed. While IDNS understands the legal and technical limitations for risk-informed regulation being used concurrent with the existing deterministic regulatory approach, we caution that the NRC's implementation schedule, with two regulatory systems in effect, may be too taxing on existing NRC and stakeholder resources.

IDNS also supports the notion of expanding the Risk-Informed Oversight Process into the Nuclear Materials Safety Arena. We recognize, however, that this is not as mature a process as it is in the Nuclear Reactor Safety Arena. Not all the data may be available to conduct in-depth analyses necessary for a completely risk-informed approach. Nevertheless, risk-informed materials regulations are a good idea, and hopefully will help the NRC and the Agreement States have practical and efficacious regulatory programs. It is vital to compare the relative risks from all sources of radiation so there are consistent standards from one regulatory area to another. Also, the idea of reducing regulatory burdens through more efficient and effective inspections is very worthwhile.

Volume 2, Part 1 of the Strategic Plan mentions the National Materials Program, however, nobody has a clear vision yet of what such a program looks like or how it works. What is clear is that there are two new realities that may form the basis for a path forward for us all. First, NRC acknowledges that it is not solely responsible for materials oversight activities. We would agree that we (the NRC and the Agreement States) share responsibility in achieving the strategic goals and measures of success described in your plan and that licensee performance reflects the results of the collective efforts of NRC and the Agreement States. The second issue is that as more states become Agreement States, NRC's levels of staffing and expertise are decreasing relative to that of the states. We believe these new circumstances provide the opportunity to work together to change the materials licensee oversight paradigm from one where all rules and guidance flow

down from the NRC to a collaborative system where all of our resources are more effectively used. This may also require that NRC reconsider the concept of compatibility and how it is applied to rules developed using a cooperative process.

NRC has begun to embrace this approach by creating a Working Group to design a National Materials Program. An IDNS senior staff member has agreed to serve as co-chair of this group, whose first work product is due to the NRC Commissioners in May 2001. IDNS strongly supports the efforts of this group and believes that its work product should form the basis of any new risk-informed approaches to regulation of nuclear materials licensees.

In closing, I would like to reiterate that IDNS supports the Commission's efforts to risk inform the oversight process in its various areas of purview. We have taken a very active, and I hope, useful role in assisting in the development of the risk-informed oversight process for the reactor safety arena, and we would welcome the opportunity to actively participate in this process for regulation in the materials and waste arenas as well.