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UNITED STATES NUCLEAR REGULATORY COMMISSION  
PERIODIC BRIEFING ON NEW REACTOR ISSUES

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WEDNESDAY

FEBRUARY 28, 2007

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The Commission convened at 9:30 a.m., Dale E. Klein, Chairman presiding.

NUCLEAR REGULATORY COMMISSION

DALE E. KLEIN, CHAIRMAN

JEFFREY S. MERRIFIELD, COMMISSIONER

GREGORY B. JACZKO, COMMISSIONER

PETER B. LYONS, COMMISSIONER

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PRESENTERS:

LUIS REYES, EXECUTIVE DIRECTOR FOR OPERATIONS

WILLIAM BORCHARDT, DIRECTOR, NRO

GARY HOLAHAN, DEPUTY DIRECTOR, NRO

DAVID MATTHEWS, DIRECTOR, DIVISION OF NEW REACTOR

LICENSING, NRO

LOREN PLISCO, DEPUTY REGIONAL ADMINISTRATOR FOR

CONSTRUCTION, REGION II

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

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CHAIRMAN KLEIN: Ed McGaffigan will be coming a little bit later.

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He's waiting to get some test results. He will be joining us shortly.

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It is a pleasure to talk about new reactors today. I think had you asked that question a few weeks ago, we're not so sure that it would have been a positive discussion, but the fact that the budget has come through and we can now talk about new reactors is a very positive sign. Any comments before we start? Luis?

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MR. REYES: Good morning, Chairman, Commissioners. The staff is ready to brief the Commission on new reactor licensing. The Commission requested that we keep you abreast of all the activities that are going on in this area and that we have frequent briefings of the Commission.

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Today's briefing is the first time that the Office of New Reactors is formed and we have the leadership here in front of us. To have a successful project, you need two things: resources and you just mentioned, we do have the budget by the support of Congress, and the second one is leadership. And you have in front of you the leadership that's going to move forward. Can I have Slide number 2, please?

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Just briefly, the only point I want to make here is that you have seen this before in terms of the workload we have in front of us, but since the last time you saw this, there is an addition.

1 Detroit Edison Company has announced that they also intend to have a  
2 combined operating license application submitted to the NRC in the future so our  
3 workload not only has remained the same, but it appears to continue to grow.

4 With that, let me turn over the discussion to Bill Borchardt, the Office  
5 Director.

6 MR. BORCHARDT: Good morning. While we're on slide 2, I'd just  
7 like to reiterate a few points. One being the information on this chart is based on  
8 Letters of Intent from potential applicants. As you can see, there's 17 combined  
9 licenses expected in 2008.

10 It's a significant challenge for the agency because it's not just the Office of  
11 New Reactors that's involved in this work. Also, information is vitally important for  
12 us to be able to do the proper budgeting and planning.

13 This information has been provided to us by the applicants. We are  
14 preparing a Regulatory Information Summary that will ask for information for  
15 potential applicants' plans beyond what you see on this chart.

16 Also importantly, especially important to Loren Plisco and the Region II staff  
17 is any information that we can get from those COL applicants as to when they  
18 might actually be beginning construction because our staffing levels especially in  
19 Region II will need to be matched up to those actual construction activities.

20 So the better we understand their plans, the better we can do our own  
21 budgeting. Next slide, please.

22 As Luis mentioned, this will be the first of periodic briefings on new reactor

1 activities. We are planning to do these every two months. Today's agenda is  
2 relatively general in nature, being the first of these meetings, but future meetings  
3 will be briefed by the Office of New Reactors and the Region II staff on specific  
4 topics in more detail.

5 I'll discuss our proposal for what those topics will be at the very end of the  
6 staff's presentation. I'll be going over some of the transition status activities  
7 standing up with a new office.

8 Gary Holahan, the Deputy Director of the office will talk about infrastructure  
9 activities, things like rulemakings, guidance development, and the construction  
10 inspection program. Then Dave Matthews who's the Director of the Division of  
11 New Reactor Licensing will talk about project activities. Next slide, please.

12 Being the first Commission meeting, I thought it was appropriate for us to  
13 put up our mission statement. This mission statement reflects, I believe, the  
14 Energy Policy Act and the industry and national interests with having nuclear  
15 power be considered as a viable option for meeting the nation's future energy  
16 needs.

17 Success depends on a number of NRC offices, including Region II, Nuclear  
18 Security and Incident Response, NRR, Office of Research, Admin, OGC, the  
19 Board's and all of the support offices.

20 In addition to the NRC offices, there's a very important interface with DHS  
21 and FEMA, since they have responsibilities in the area of emergency  
22 preparedness and security. Next slide, please.

1           This chart shows the organization of the Office of New Reactors. I'm happy  
2 to announce that we now have the complete management team in place for the  
3 office. All the division directors and deputies are in place, with the exception of a  
4 few. Those two deputy division directors have been selected and will be reporting  
5 very soon.

6           The staff will be continuing its transition from other parts of the agency into  
7 the Office of New Reactors as the work comes to the Office of New Reactors as  
8 well.

9           Although the vast majority of the technical review is done by NRO or under  
10 contracts managed by NRO, there's a very important part played by the Office of  
11 Nuclear Security and Incident Response in the emergency preparedness and  
12 security areas. Next slide, please.

13           I'd like to acknowledge the leadership of Jim Dyer and Mike Webber on  
14 setting a very cooperative and supportive environment as the Office of New  
15 Reactors was stood up.

16           As you well know, it is really in a way split off from the Office of Nuclear  
17 Reactor Regulation and we both entered into this transition with full knowledge  
18 that operating reactors must remain a high priority and that both offices needed to  
19 be staffed and filled with talent so that both could succeed.

20           And due to Jim and Mike's leadership in this area, I think we have been  
21 highly successful in accomplishing both missions and leaving both offices well  
22 positioned for success.

1           We've also worked very cooperatively with the partnership in developing  
2           and implementing a well thought out transition plan. There are, however, a few  
3           very important and difficult challenges, not the least of which is the office space  
4           situation.

5           We are unable, due to the situation again that I know you're well aware of,  
6           of having the staff co-located in the Office of New Reactors. It's a significant  
7           challenge, especially when trying to establish a new culture and a new office.

8           We look forward to, even on an interim basis, being able to consolidate  
9           some key aspects of the office. As of today, we're still not there. We are trying to  
10          take advantage as best we can of some initiatives such as making extensive use  
11          of our internal web page, that we hope serves as a source of daily information for  
12          the New Reactor staff.

13          Since we don't have the luxury of being able to walk down a hallway and  
14          see our people, we're trying to keep our internal web page up to date on a daily  
15          basis so that we can get the information out to all of our staff members and  
16          develop a sense of community, even if it's a virtual sense of community, until we're  
17          able to be co-located.

18          We're also making more extensive use of frequent staff meetings, all  
19          supervisor meetings, and really making an extraordinary effort to do that kind of  
20          outreach within the office.

21          I'm happy to report that from day one we've had very close coordination  
22          with Loren Plisco and the Region II team and that works on a consistent basis.

1 Loren calls into some of the staff meetings that we have in headquarters just so  
2 that he is up to speed on what issues we have before us and we can receive his  
3 input as we develop the various programs. Next slide.

4 In October, the Office of New Reactors had approximately 85 people on  
5 board. December it moved up to 100 and the four refers to the number of  
6 individuals in the Region II staff assigned to new reactor work.

7 In February, we had a major transition of staff from NRR to NRO and our  
8 number now is approximately 250 people on board. Our target for the end of this  
9 fiscal year will be approximately 355 people in headquarters and 20 individuals in  
10 Region II.

11 However, we anticipate that the industry applications, if they do come in as  
12 the chart indicated earlier, that we will use the flexibility within the budget to allow  
13 us to translate contract money to FTE.

14 The reality is that it's more efficient, more cost-effective for us to do work  
15 with in-house staff. It costs twice as much to accomplish the same amount of work  
16 using a contractor as it does in-house staff.

17 If the applications come, I would plan that we will just pass through 355  
18 people, eventually ending up with a staffing size of around 480 within the Office of  
19 New Reactors and headquarters and a comparable increase if not more in the  
20 Region II staff, depending again on our latest understanding of when construction  
21 activities will really begin. Next slide.

22 We are very mindful of the challenge to coordinate both within the NRC and

1 outside. We have set up a number of protocols to ensure technical consistency,  
2 especially with the Office of Nuclear Reactor Regulation and the Office of  
3 Research.

4 Security and Emergency Planning as I mentioned will be a significant  
5 coordination challenge and we are looking to the Office of Nuclear Security and  
6 Incident Response to be the primary interface with the Department of Homeland  
7 Security and FEMA as we work through the reviews in the EP and security areas.

8 The Multinational Design Evaluation Program, of course, is an international  
9 effort for which we are coordinating with the Office of International Programs.

10 We will have a number of meetings throughout the summer on these  
11 programs as we do outreach and the Regulatory Information Conference in fact  
12 will have separate breakout sessions on the Multinational Design Evaluation  
13 Program.

14 There are a number of cross-agency groups that do advanced reactor  
15 coordination, various steering committees, all with the intent to make sure that the  
16 major program offices, Research, NSIR, NRR, and NRO are all aware of each  
17 other's activities, that we all each have an opportunity to input on the plans for  
18 moving forward.

19 The interface activities that we've had with the industry, primarily working  
20 through NEI at this stage, have already shown to be a very valuable way of raising  
21 issues, bringing them up to senior management's attention and working on a path  
22 forward. With that, I'll turn the presentation over to Gary Holahan.

1 MR. HOLAHAN: Thank you, Bill. Can I have the next slide, please?

2 I'm going to speak to five areas of infrastructure development that we've been  
3 undertaking and the progress that we've made in those areas: rulemaking,  
4 guidance development, some infrastructure tools, our plans for using technical  
5 assistance contracting, and then just touching on the Construction Inspection  
6 Program.

7 We won't go into any detail today because Bill will come back to that at the  
8 end. This is one of the topics that we think deserves its own meeting with the  
9 Commission where we'll have more time to get into some depth on that program.  
10 The next view graph.

11 With respect to rulemaking, as the Commission knows, the staff has  
12 produced a number of proposed and draft final rules that are in the late stages.  
13 Part 52, in front of the Commission; very important part of clarifying and setting the  
14 groundwork for the applications we expect later this year.

15 Limited work authorization, which is also a final rule package that provides  
16 revised definition of construction and a revised process for allowing limited work  
17 prior to full construction activities.

18 In addition the fitness for duty issue, which has been on our plate for a long  
19 time, has a specific section in that rulemaking activity addressing the fitness for  
20 duty requirements for construction activities.

21 In addition to these, there are a number of security rulemaking efforts that  
22 are ongoing; the design basis threat applying to both operating reactors and new

1 reactors.

2 Power Reactor Security requirements, this is basically the requirements that  
3 the Commission put in place by order after September 11<sup>th</sup> and codifying those  
4 into regulations; also applicable to both operating reactors and new reactors.

5 The proposed security assessment rule that's obviously had a lot of  
6 discussion with the Commission as to what would be an appropriate level of  
7 security assessments, not just for operating reactors, but to take advantage of the  
8 opportunity during the design stage to take some security issues and deal with  
9 them early in the design process above and beyond what can be done for an  
10 operating reactor or a reactor that has a design that's already been approved.

11 Can I have the next view graph?

12 In addition to rulemaking activity, we have an extensive guidance  
13 development activity involving the Standard Review Plan and Regulatory Guides.  
14 Back about a year ago we decided to accelerate the Standard Review Plan  
15 activities with the intent of completing those by the end of March of this year.

16 A date was chosen because we wanted to allow about six months for those  
17 to be in place before the first applications for combined licenses were expected  
18 and since Part 52 calls for applicants to address the Standard Review Plan -  
19 address and evaluate their design against the Standard Review Plan which is in  
20 place six months ahead of time, we thought it would be important to have a clear  
21 up-to-date set of Standard Review Plans with a March 2007 date.

22 I'm glad to be able to report that we are about 80% complete. Of the 296

1 Standard Review Plans, about 237 are already completed. We're on track to  
2 complete the rest of those with just a few exceptions by the end of March.

3 The primary example of what will be done after March particularly is the  
4 Standard Review Plan relating to probabilistic risk assessments and that's  
5 because we will have to conform that Standard Review Plan to whatever version  
6 of Part 52 the Commission should approve.

7 There are a number of possible changes in Part 52 that would affect how  
8 the staff reviews the probabilistic risk assessment and that would be conformed  
9 and it will be done as quickly as possible after the Commission finalizes its  
10 decisions on Part 52.

11 We separated out Draft Guide 1145 on combined license applications. That  
12 will be published final as Regulatory Guide 1.206. So, over the next few months  
13 you'll see the terminology change.

14 That guide has had an extraordinary amount of public interest and public  
15 involvement; a whole series, seven or more public meetings and workshops, many  
16 hundreds of public comments that are being resolved. That one, again, will be  
17 finalized and our goal is to do it within 60 days after the Commission finalizes Part  
18 52.

19 This is directly related to how applications would be required to conform  
20 and implement Part 52, so there are a number of areas that might need to be  
21 finalized. But we're well along the way to having that completed.

22 With respect to the Regulatory Guides on the more direct technical topics,

1 the Office of Research has the lead on that activity and has been extraordinary  
2 job.

3 We originally selected 63 important Regulatory Guides, 31 of which we  
4 identified as needing to be up-dated for the new reactor applications. Twenty-nine  
5 of those are on track to be completed by the end of March.

6 We are dealing with extensive public comment on the electric power  
7 distribution and exactly how we settle that, whether it's end of March or shortly  
8 thereafter, I think remains to be seen. And then, of course, the one I just  
9 mentioned is the Draft Guide 1145, it is the other of the two that won't be  
10 completed probably by March 31<sup>st</sup>.

11 We are going through a consistency review to make sure that when we  
12 finalize the rule Standard Review Plan and the regulatory guides that they are  
13 100% consistent and we expect all of these things to be completed by this  
14 spring.

15 I think that will set us on a very good course to be prepared for COL  
16 applications this fall. Can I have the next view graph?

17 On infrastructure tools, we decided early on and I think we reported to the  
18 Commission last fall that we felt that it was important because of the number of  
19 simultaneous applications and the complexity of these activities that we would  
20 have to raise our ability to plan, schedule and manage these activities to a new  
21 level.

22 We have had an extensive activities and contractor support on what we

1 call the Licensing Program Plan which is essentially the scheduling, planning,  
2 resource management, tracking and reporting tool.

3 We made very significant progress. We have had a contractor produce  
4 that tool for us. What we have now basically is our model template of how our  
5 review would be done. But what will really happen is each time an application  
6 comes in, we will have an application specific plan that has all the schedules  
7 and milestones in it.

8 I know there has been some frustration on the part of probably the  
9 Commission, but certainly the industry and some others that every time we  
10 show the chart that was at the beginning of the meeting, we show certain fixed  
11 period of time for every review as though every one of them is identical; where  
12 in fact circumstances of each review, how many issues were closed in the  
13 design certification, how many issues were closed in the early site permit, and a  
14 number of perhaps site-specific issues will determine what the actual schedule  
15 is.

16 This is our tool for putting all those issues together and coming up with an  
17 as good and as realistic a schedule as possible.

18 COMMISSIONER MERRIFIELD: Some of that, just to interject for  
19 a second, and I know this because of some meetings I've had recently - some  
20 would also play into the quality of the application and the detail going into that  
21 application and the subsequent need or not for rounds of staff request for  
22 additional information.

1 MR. HOLAHAN: Absolutely correct.

2 COMMISSIONER MERRIFIELD: That's an important point and  
3 useful for the Commission to know.

4 MR. HOLAHAN: Yes, sir. It's part of the encouragement that we  
5 want the industry to take to provide first class, quality applications to obviate the  
6 need for some of those questions.

7 The construction inspection program has a very important aspect to it and  
8 that is the information management system. At the end of the construction  
9 process the Commission has a very crucial role and that is to make a finding that  
10 all the inspections, tests analyses and acceptance criteria have been met and in  
11 order to do that we need a tracking system which plans and tracks those activities.  
12 So that's under development as well.

13 The Office of Information Systems has an electronic filing, review and  
14 distribution project under way. We were briefed on it last month. It appears to be  
15 on track for completion in June. That's an important part of our ability to be  
16 efficient and effective at these multiple reviews.

17 In addition to that, we're planning on putting desktop tools and making  
18 those available to the reviewers. We're still in the developmental stage, but our  
19 idea is to provide to the reviewers electronic versions of all of the documents that  
20 they need to do their job.

21 If they need a guidance document, it should be immediately available, it  
22 shouldn't be something you have to go and look for. So, a combination of desktop

1 assistance which we refer to as "The Wizard", if you have heard that terminology,  
2 combined with the Licensing Program Plan is basically our approach to an  
3 electronic version of a review and as close as we can get to a paperless review  
4 process. Can I have the next view graph?

5 I'd like to spend just a few minutes on technical assistance contracting and  
6 how it fits into our plans. Bill Borchardt mentioned earlier that there's certain  
7 efficiency to doing work in-house. However, technical assistance contracting has  
8 a couple of really important aspects that we plan on involving in the new reactor  
9 reviews.

10 One is resource flexibility. That is it is much easier to bring a contractor  
11 with expertise, make those resources available to us and in fact drop those  
12 resources when you don't need them any more, and to handle the ups and downs  
13 in workload.

14 It's much easier to do that through contracting than it is to do that with staff.  
15 When we hire staff, we train them, we qualify them, and we keep them. So we are  
16 planning on taking some of the variability in the workload up with the contract  
17 activities.

18 In addition to that there are certain specialized expertise that contractors  
19 can bring to bear that we don't necessarily need as a continuing expertise in long  
20 term for the staff. That is a valuable use of contracting and we intend to do that.

21 As we move forward in the contracting area, we see both relatively large  
22 commercial contracts, small business contracts, and the extensive use of national

1 laboratories as the mix that we would use in these kinds of supports.

2 We are expecting because of the magnitude to look for large flexibility and  
3 multiple year contracts.

4 I will just mention that, and I believe the Commission already knows, that  
5 the contracting process was selected as an application for the Lean Six Sigma  
6 pilot. A number of those activities have been undertaken recently.

7 I know the reports are not out on it yet, but I can report that it does appear  
8 to be a very valuable process. It's identified some valuable insights.

9 There'll be some recommendations for substantial enhancements both in  
10 timeliness and in efficiency and it does look like a worthwhile activity. Next view  
11 graph, please.

12 The last issue I'm going to speak to just very lightly is to remind the  
13 Commission that we are still pursuing development of the construction inspection  
14 program. We're moving forward on the procedures for the ITAAC, inspection, test,  
15 analyses and acceptance criteria; a key part of Part 52.

16 Other inspection areas, the one at the bottom of the page, vendor  
17 inspection, I think is worth just a little extra mention. What we see is because of  
18 the new reactor activities, we will be changing our approach to vendor  
19 inspection.

20 I think over the last several years and probably a few decades with the  
21 operating reactors already in place, this has not been a major emphasis of the  
22 staff. We used some cooperative activities with the industry groups and for the

1 most part vendor inspections were done on a reactive basis.

2 If there were some reason to think there was a difficulty, we would go and  
3 search it out. That approach is probably not suitable for new reactors where  
4 there will be very substantial manufacturing activities taking place around the  
5 world.

6 So we are moving forward on substantial upgrade to our vendor  
7 inspection activities and we are now in the process of working out the  
8 relationship of quality assurance inspections, vendor inspections, code and  
9 standard compliance in a way that provides a cooperative program between  
10 headquarters and the Region II activities.

11 And we will also have some new issues to face such as modular  
12 construction, where some activities that in the past would have been done at a  
13 construction site will be taking place in a factory at a place that is remote from  
14 the construction site and so we will be working that out as well.

15 As I mentioned before, we expect - we at least will propose that this is a  
16 subject for more extensive discussion with the Commission as one of our  
17 periodic topics.

18 Now, let me turn it over to Dave Matthews to cover to project steps.

19 MR. MATTHEWS: Good morning. I'm going to address the ongoing,  
20 what is generally referred to as case work reviews that have been underway for  
21 some time. The onset of these reviews for the most part took place under the  
22 Office of Nuclear Regulation during the creation discussions associated with the

1 new reactor office.

2 We were mindful of and the Commission was right to emphasize that  
3 continuity with regard to these reviews was very important to us and to them and  
4 to the affected stakeholders as we move from NRR into a new reactor organization  
5 and we made sure that we didn't lose sight of the importance of those reviews and  
6 the milestones associated with them.

7 I can report that I believe we've been very successful in maintaining that  
8 continuity and adhering to the schedules that have been established and providing  
9 progress which continues to this date. We don't expect that to diminish.

10 What I'm going to discuss very briefly is generally well known, I think, to the  
11 Commission and to the applicants, to Congress, and DOE by virtue of the fact that  
12 there are many people that are overlooking this activity and ensuring that we  
13 maintain this progress in continuity.

14 I'm going to speak to the early site permits and design certification activities.  
15 I'm going to speak to the pre-application review activities under way. These are  
16 considered to be the activities in advance of the expected receipt of combined  
17 licenses and future design certifications.

18 And then I'm going to conclude by speaking briefly to Stage One activities  
19 under the Multinational Design Evaluation Program and the activities that we have  
20 under way. I'll speak to a couple of the benefits we've seen as a result of that.

21 Next slide, please.

22 Real quickly with regard to Clinton; the staff evaluations are complete. The

1 initial decision by the ASLB has been issued. The staff has responded as well as  
2 the applicant to Commission questions. We've provided those. We're prepared to  
3 issue that permit upon receipt of a favorable Commission final decision.

4 With Grand Gulf, I would argue probably, I could say exactly the same thing  
5 with the exception that the staff responses were only recently filed; I believe it was  
6 Monday, in response the recent Commission affirmation and order.

7 But similarly, we will be in a position to respond to your final decision in that  
8 regard in a prompt manner. I say in a prompt manner I'm really reciting according  
9 to the regulations which I believe is ten days following your decision.

10 North Anna is in the hearing phase at this point in time, so I will not speak to  
11 that any further. Vogel, the staff review, is underway. We had a slight downturn  
12 in our ability to continue funding some of the contractor environmental reviews  
13 based on the decisions associated with the continuing resolution and the  
14 unavailability of allowances for FY-07 money.

15 We believe that in spite of that slight downturn, we have recovered that time  
16 and that effort and at the same time, we're able to sustain our support to the North  
17 Anna hearing activity, so I believe we're back on track and conforming to the  
18 schedules that we shared with regard to Vogel.

19 The other active ongoing review in this category is the design certification  
20 rulemaking activity; in this instance the preparation of the final design approval in  
21 response to a design and certification document submitted by GE in support of  
22 their ESBWR. That is under staff review at this point in time. Next slide, please.

1           With regard to pre-application review activities, in brief, Westinghouse has  
2 submitted some on the order of, and don't hold me to these exact numbers, they  
3 change on a frequent basis, but about 70 additional technical reports related to the  
4 AP1000 design certification rule that already exists and its design control  
5 document.

6           The intent is to address open COL information that is expected to be  
7 needed by potential applicants. They are addressing outstanding design areas  
8 that were not completely resolved in the original design cert rule and were  
9 addressed through the use of something referred to as design acceptance criteria.

10          They are also reviewing design changes that they have chosen to make  
11 and expect their combined license applications to address and embrace in a  
12 standardized way.

13          So basically, the review of these technical reports will be referenced in the  
14 upcoming combined license applications we expect to receive from those  
15 applicants who have chosen the AP1000 design.

16          They also will provide the basis for a potential design control document  
17 revision that Westinghouse intends to submit potentially mid-year of this calendar  
18 year to support an amended design certification rule if that is permitted by the  
19 future publication of Part 52, pending the Commission's resolution of that issue.

20          Westinghouse has shared their desire to complete such an amended  
21 rulemaking if the opportunity is provided by the regulation.

22          With regard to AREVA and the evolutionary power reactor activities, they

1 are doing a similar effort in any regards, but given that they have not yet submitted  
2 us an application for design certification, these are the review of topical reports I  
3 would say working ahead, trying to address what they view to be, and we would  
4 agree with them, our long-lead design items that will hopefully make the  
5 subsequent review after the submittal of their design certification application  
6 prompter and more efficient.

7 Right now those reports number around 13 specifically directed toward  
8 early staff review of the design certification expected right now by their current  
9 estimate in December of this year.

10 There has also been the creation of, prompted by one of our regulatory  
11 issue summaries and the embracing of the staff's proposal that these reviews  
12 can be conducted most efficiently and effectively by utilizing what we term,  
13 "design centers".

14 There has been formed design center working groups for all the expected  
15 designs expected in the fall that are going to be referenced by the COL  
16 applicants. Those design center working groups have as their participation the  
17 expected applicants.

18 They are attended and those meetings are strongly supported by each of  
19 the respective vendors and agreements have been reached among all of them  
20 with regard to an approach to standardization which would have as an objective  
21 something on the order of 65 to 75% of the applications being virtually identical.

1           The distinctions between them or among them only being based upon  
2 site specific considerations. And we have seen a great deal of interaction. We  
3 have extensive meetings with the two focused on AP1000 and ESBWR.

4           We have yet to have an actual collegial meeting with regard to the ABWR  
5 and the EPR, but they have attended all the meetings of the other design center  
6 working groups and as some of their activities come closer to fruition we will be  
7 meeting with them as well.

8           With regard to the Multinational Design Guide --

9                       COMMISSIONER MERRIFIELD: You really mean to say that you  
10 haven't had a meeting. You said you haven't had a collegial meeting. You  
11 wouldn't want to leave the ambiguity of having a non-collegial meeting. You  
12 have not had a meeting to discuss this is what you meant to say.

13                      MR. MATTHEWS: Correct. With regard to the next slide, the  
14 Multinational Design Evaluation Program, we view and there have been ongoing  
15 interactions and there have been visits abroad.

16           We view in the Stage One Arena that both parties have already benefitted  
17 from these interactions. We believe we benefitted directly from the interactions by  
18 viewing the approaches that have been taken by these partners with regard to the  
19 main control room design activities and by seeing construction challenges that  
20 you've probably been briefed on at times that have arisen in the course of the on  
21 going interest of development activities and construction activities.

22           And with that, I'd like to turn it back to Bill and provide some concluding

1 remarks.

2 MR. BORCHARDT: Thank you, Dave. Next slide, please. As I  
3 mentioned earlier, we anticipate doing a new reactor briefing approximately every  
4 two months. My proposal subject to Commission comment would be that the  
5 normal routine for those meetings would be that we would provide a description of  
6 what's changed since the previous meeting and then focus on one of the topics  
7 listed on this slide and of course this list can be supplemented.

8 Our proposal right now is that the next meeting, which would be held late  
9 April/early May; I don't believe it's been scheduled yet, would focus on the  
10 construction inspection program.

11 There's been a lot of activities going on in cooperation with the Region II  
12 staff, all the regions to some degree, and the NRO staff on developing the entire  
13 infrastructure of that inspection program; how we're going to verify ITAAC, how are  
14 you going to document it. A wide range of issues that we think would be well  
15 worth spending the majority of a Commission meeting on and then subsequent  
16 meetings, not necessarily in the order shown on the side. We would pick one of  
17 those for each of the subsequent meetings.

18 That's the staff presentation.

19 MR. REYES: Chairman and Commissioners that concludes our  
20 formal remarks. Let me reemphasize an objective that I emphasize to the staff  
21 when we meet and I hope that the briefing today conveys that message.

22 Our objective is that, and I'll use a Six Sigma lingo here for a minute, that

1 there be zero idle time between an application coming through us and when the  
2 staff starts working on it.

3 We are seeking for detailed information on two things; when the  
4 applications are coming in and when the construction activities are going to  
5 happen at the site and so we are prepared with zero idle time between those  
6 activities and our reaction to it.

7 We do expect high quality applications and we expect a combination of  
8 those two factors will lead to us to a thorough but expeditious review of the work.  
9 With that, we are open for questions.

10 CHAIRMAN KLEIN: Thanks, Luis, and the team members for this  
11 good presentation. As we've stated before with Jim in the background, one of  
12 the reasons we created the Office for New Reactors was so we can remain  
13 focused on the existing fleet as we look toward the new one.

14 And so, while we are hearing about the new ones today, I notice that Jim  
15 is still looking at the existing ones, so thanks. We will start our questions with  
16 Commissioner Merrifield.

17 COMMISSIONER MERRIFIELD: Thank you very much, Mr.  
18 Chairman. I was sitting here listening to staff this morning and was realizing  
19 having been here on the Commission for 8½ years, I got a bit of an epiphany; I  
20 think the longer you are here sitting on this side of the table, the greater likelihood  
21 you want to make comments rather than asking questions and Ed and I seem to  
22 exhibit that. You'll get there someday, too.

1           Let me start with some statements and I'll follow them up with some  
2 questions. You mentioned this morning Luis, you were referencing this chart.  
3 This is the famous bar chart. And one of the comments made, I think either you or  
4 Bill made it, was sort of the frustration evidenced by some of our licensees, maybe  
5 it was Gary, that we treat them all the same.

6           And I think there is some discussion about other ways in which we can  
7 modify that; some being made by the staff, some being made at the Commission  
8 level, including a group that I'm heading with Loren Plisco trying to look at some  
9 ways that we might have some options in terms of reducing some of this time.

10           But I have a different reaction from the chart that plays off of Luis' comment  
11 on zero idle time in Six Sigma. One of the concerns I have here is who's listed on  
12 the site – who's listed on the chart.

13           We have Letters of Intent from a variety of different companies about a  
14 desire to build plants and given the meetings that I had and others have had, not  
15 everyone is the same on this chart; different people are in different places.

16           Without naming particular names I think there are some companies which  
17 are clearly by their actions and activities being undertaken at sites have significant  
18 interest in actually moving forward with building the plants. Some of them are  
19 folks saying, "I'm interested in building a plant. I sent you a letter, but we have  
20 nothing really to show for it."

21           In some cases, the CEOs of the companies haven't even taken the time to  
22 talk to the Commissioners about their intent. I think for me that's a meaningful

1 issue.

2 There are a couple of folks on here who have, and not to pick on anybody,  
3 but UniStar for example. Put us down for three sites, sites to be named later.

4 That is clearly an objective of UniStar and I understand where they're coming from.  
5 From the standpoint of making sure we have the right people in the right place, we  
6 can't plan on to be filled in later.

7 What troubles me on this chart is we're continuing to put them down for  
8 three units. We don't have any data right now as to back up who those are.  
9 There's been some talk; some of those utilities have not made themselves known.

10 In my personal view, I think this is something the Commission needs to  
11 think about, until we have a more specific commitment from a utility to actually go  
12 ahead and utilize that design for a specific site, I'm troubled by the degree to which  
13 were planning on something which may not materialize.

14 Frankly, again, not to pick on somebody, but I think somewhat similar  
15 situation with TXU. There was a major announcement this week that TXU is going  
16 to be purchased. The Commission will have to opine on its views on that.

17 They put themselves down for three sites. TXU also said they want to build  
18 11 coal generating stations and the new company now says they want to build  
19 three.

20 I'm troubled by the degree on which we are relying on the statement of  
21 intent, basically on a piece of paper, without a real understanding of whether that's  
22 going to mature or not. I think it's very unclear right now where TXU is going and I

1 think that's something we need be concerned about.

2 We, as a Commission, have an obligation to meet the requirements for you  
3 all to do your job to meet these in a timely way. I fear we may be setting ourselves  
4 up for gaps and not meet that zero idle time under Six Sigma if we aren't  
5 appropriately aligned. I'm troubled by this chart.

6 I think we need to make some modifications to it and stop listing desires  
7 and start listing where we've got real indications. That's a statement, not a  
8 question.

9 In terms of - you mentioned vendor inspection. I think this is a very good  
10 point to underline. Can you give me some sense - it seems quite obvious to me  
11 that we would want to send inspectors out to look at vessels. We would want to  
12 send inspectors out to look at steam generators. We might want to send  
13 inspectors out to look at pressurizers or some of the very large pumps that go  
14 into the reactor.

15 Where do you draw the line? Have you all thought at all about the depth  
16 and scope of how far we might want to go with those vendor inspections; what  
17 your thinking is?

18 MR. HOLAHAN: I think we're still early in that process. One line  
19 you can draw is safety-related versus non-safety related components.

20 COMMISSIONER MERRIFIELD: That's still a big list.

21 MR. HOLAHAN: That is still a big list. I can only speculate at this  
22 stage, but clearly there are some companies that have a long history of

1 manufacturing of nuclear components and other ones that would be doing new,  
2 different, and complex things. So I would say factors like that will affect our  
3 judgment about where we need to go and what we need to look at.

4 In terms of looking at - part of what we are doing is we're really looking at  
5 the quality assurance programs. It doesn't do any good to look at a pump if you  
6 don't - we're not going to be there all the time that the pump is constructed. We  
7 have to understand how it was done and how it's going to be done while we're  
8 not there.

9 It's got a lot do with judgments that we can make about the quality  
10 programs at those vendors. And frankly, we're at an early stage of rebooting the  
11 vendor program to get where we need to be.

12 MR. REYES: But you need to remember that we have a baseline  
13 that we did for the 112 plants we licensed before and we have a factor that's going  
14 to help us this time. On the design center approach, if you take all the AP1000's  
15 for example, for the sake of discussion, and they are all going to be built the same  
16 and all the pumps are going to be the same, et cetera, et cetera, then what Gary  
17 talked about alleviates the situation because if one manufacturer is going to supply  
18 all the safety injection pumps for the whole fleet of AP1000's, then under that  
19 scenario with a smaller number of inspections you can satisfy yourself on the  
20 quality assurance program and the products from that manufacturer itself.

21 We're in the early stages, but I can tell you were actively moving. In April,  
22 Bill and I want to be at Japan Steel Works. There's a large number of forgings

1 already prepared for U.S. reactors there.

2 COMMISSIONER MERRIFIELD: I know, I was there two weeks ago.

3 MR. REYES: I know you were there two weeks ago. The vendor team will  
4 be there doing an audit. We are actively pursuing that, but exactly the scale and  
5 magnitude of the activity; we're still wrestling with how this is going to be done.  
6 We have a benchmark for Part --

7 COMMISSIONER MERRIFIELD: You got ahead of me and I think  
8 that's part of the point I want to make. For some of those, it's fairly advanced and  
9 some of the utilities have already put money down on castings at Japan Steel  
10 Works.

11 I had a chance to see an EPR vessel that was being manufactured and that  
12 is at a site which is somewhat indeterminate at this point. So, it could very well be  
13 that the vessels for the reactors we may see may be cast in a relatively short  
14 period of time which means we have to make a decision now, particularly as it  
15 relates to that end of the process of what we have to do.

16 A couple of quick comments. Bill, you mentioned a variety of different  
17 areas that we could look at in future Commission meetings. I think that one area  
18 we need to look at is environmental issues. Those come up very early. There's  
19 quite a level of detail to them.

20 I had a chance to get some briefings from the staff on that as part of the  
21 work I'm doing. I would highly urge the Commission that that be among the first  
22 that we go with down the road. Maybe before the end of June if we can work it

1 out.

2 MR. REYES: July 1<sup>st</sup>.

3 COMMISSIONER MERRIFIELD: I think on the issue of Reg Guide  
4 1145 there may be a follow up question in the second round. You mentioned it  
5 would be issued 60 days after the Commission finalizes Part 52. That's a good  
6 jump-start for us.

7 We all voted on Part 52. Currently, we have the SRM underway. I think we  
8 are looking at the light at the end of the tunnel on that particular one. I've got a  
9 couple other things that I may come back to later on. I'll leave that for now.

10 CHAIRMAN KLEIN: Commissioners Jaczko?

11 COMMISSIONER JACZKO: I guess I'm somewhere in the middle  
12 between making statements and asking a question. I'll try and do half and half.  
13 Just a statement on a statement.

14 I do have some trepidation, I think, with the mission statement that was  
15 read or that was provided by the office. I think we do have to keep in mind that we  
16 are not - and this agency has a long history of establishing our mission and our  
17 function as being a safety regulator.

18 We have the Department of Energy that has a mission to promote various  
19 alternative energy policies, to develop an energy philosophy for this country, if you  
20 will.

21 So I think we have to be very careful about understanding our role is to be a  
22 safety regulator and not someone whose goal is to help promote an interest to

1 have nuclear power as an element for our nation's nuclear infrastructure.

2 That doesn't mean that we should take the position that it shouldn't be, but I  
3 think its somewhere in the middle. The use of the word "enabling" to me puts us  
4 perhaps a little bit too close to that line or perhaps over that line. I certainly think  
5 it's not something that's appropriate for the mission statement.

6 MR. REYES: It is in the NRC strategic mission statement. The  
7 whole NRC strategic mission statement starts with the word "enable".

8 COMMISSIONER JACZKO: That's fine. I think my problem lies  
9 perhaps with the mission statement or with that. Again, I think it's certainly from  
10 what I heard from the briefing, the staff's focus seems to be in the right place,  
11 but mission statements and things like this do carry an important symbolic  
12 message and I think we're best not dancing along those particular lines. I think  
13 we're in a better position when we don't necessarily push that too much.

14 MR. BORCHARDT: Commissioner, if I may. I'm 100% confident  
15 that every member of the staff understands the issue that you raised and they  
16 know that we are not a promotional arm of the Government, that safety is our  
17 main responsibility. I take your comment.

18 COMMISSIONER MERRIFIELD: Commissioner Jaczko, so as not  
19 to use up your time, I'm happy to talk about what went into the selection of that  
20 wording when we did the last Strategic Plan, but if we have a second round I'll  
21 use that time and not use up yours.

22 COMMISSIONER JACZKO: This really gets to a question. The

1 ACRS commented on the recent Reg Guide on fire protection. I guess the Draft  
2 Final Revision 1 to Reg Guide 1.189. In that comment there were some additional  
3 comments by several members of the board who indicated some concern with  
4 what they call kind of a dual approach going forward.

5 We have a lot of these risk informed rules that have been put in place that  
6 are voluntary rules; which makes sense I think for existing facilities where they  
7 may have been licensed to existing deterministic rules. In some cases I think  
8 that's an appropriate thing. In other cases, I think in particular with fire protection,  
9 the voluntary rule using a more risk informed approach will be a better regulatory  
10 framework.

11 The comment that was made was that we're perpetuating this dual track  
12 going forward and it seems like we should be picking one or the other as we go  
13 forward for new plants. This is particularly interesting for me because I happen to  
14 have gone to one of NEI's fire protection forums about a year or year-and-a-half  
15 ago.

16 Somebody asked the question, "Is fire protection going to be the mess that  
17 is now?" I said, "Well, it shouldn't be because we're going to do these things right  
18 from the beginning."

19 Part of the problem with the mess is that we have these plants that had  
20 been built and then we had to try and go back and realize some things weren't  
21 done in the best interest of fire protection.

22 So the question in all of this is really, one on the fire protection, does the

1 staff believe that the risk informed rule is the better rule for new licensees to use?  
2 And will licensee's likely use from your discussions are they planning to use an  
3 FP-805 approach or do you see that going forward we're going to have a mix of  
4 deterministic and risk informed fire protection?

5 MR. HOLAHAN: I don't think I know the answer to that but it's certainly our  
6 hope that they'll use 805. I haven't heard that explicitly.

7 MR. REYES: We don't know the specifics of that. You have to look at the  
8 list of the seven COL's that are coming this year and you have designs that are  
9 somewhat buried.

10 If you have the ABWR on one side and you have the EPR on the other side  
11 and where your cables are and where the physical separation is has a lot to do  
12 with how you go around the business. I don't have the answer for you, but I'm not  
13 sure its 100% one way.

14 COMMISSIONER JACZKO: I appreciate that. I think perhaps just as  
15 a follow-up. I think it would be important perhaps to know what the approach is  
16 going to be and secondly if there are other rules like this, where there is the  
17 opportunity to perpetuate this dual track - of course we have some that are in draft  
18 stage. The one I'm thinking of is the ECCS rule, which I'm not particularly  
19 supportive of. I think that can be solved rather easily.

20 But perhaps the staff can look into other rules that may fall into this  
21 category and I think this may certainly be something that the Commission needs to  
22 take a look at, perhaps as we go forward that we don't continue in light of potential

1 new licensees to perpetuate these dual track systems; that we make a decision  
2 about which one.

3 I certainly have more questions; I guess I have a little bit more time.

4 Following up on this idea a little bit, one area that the Commission is looking at  
5 some new approaches and is tied very heavily to the ROP is in the area of safety  
6 culture.

7 Again, I guess I would ask given that right now our safety culture approach  
8 is so tied to the ROP and the ROP will be implemented in phases if we get plants  
9 licensed and then as they're constructed and certain elements of the ROP will get  
10 incorporated. How does the staff see dealing with safety culture without a full  
11 ROP in place?

12 MR. BORCHARDT: One of the areas relates immediately to the  
13 construction inspection program. There will be QA/QC oversight and inspection  
14 procedures that are somewhat analogous to the way plants were inspected 20  
15 years ago, but also taking into account the Part 52 ITAAC elements.

16 We would certainly build upon or borrow from the ROP safety  
17 culture aspect and bring that into the construction inspection program; however,  
18 how the findings would be dealt with is likely not to be the same. But we would  
19 still do an evaluation and provide an inspection function in that area.

20 MR. HOLAHAN: The one element that we know is useful is  
21 developing a concept of expanding inspections. In other words, if you see some  
22 problems with the quality assurance programs or whatever type of safety culture

1 problem we have, we have the opportunity to expand the inspections to cover  
2 more of whatever we were doing.

3 MR. REYES: One of the things that we learned and I will keep  
4 repeating this. In the 112 that we licensed at one time, when we go there and  
5 do the inspection, we actually talk to more people because there are more  
6 people working.

7 So when you talk about the inspection program talking to the workers,  
8 whether they feel it is helpful raising issues about non-conformance and all that,  
9 we have a larger data set and that was our experience during the construction  
10 days.

11 The inspectors will talk to a lot of welders, a lot of the carpenters, a lot of  
12 the riggers, and it's much easier to flush out the issues of whether they do feel  
13 comfortable following the procedures raising issues, stopping work, et cetera.  
14 So we will mimic what we have now and what we had before under Part 50.

15 CHAIRMAN KLEIN: Commissioner Lyons?

16 COMMISSIONER LYONS: Thank you, Mr. Chairman. I guess I  
17 would first echo your comment that I'm glad we are having this discussion after the  
18 CR issues have been put behind us and hope they don't reoccur in subsequent  
19 years but at least we have solid resource and the support of Congress moving  
20 ahead. That's very positive.

21 Certainly, I very much appreciate the briefing that you folks have presented  
22 today. Since this is the first brief from NRO, I think it may be worth just reiterating

1 my very, very strong support for the reorganization that created your office.

2 I think the briefing that you presented indicates the wisdom of the  
3 Commission's action in doing that by allowing Jim Dyer to maintain the very, very  
4 strong focus on the operating plants and as you've demonstrated here your very  
5 strong interest in making sure that we are achieving safety and working toward  
6 safety in what may be a new fleet of reactors.

7 I think it's absolutely vital, certainly for the country and critical for the  
8 agency. I wasn't going to comment on your strategic objective, but since  
9 Commissioner Jaczko did, I, too, have looked many times at the agency's use of  
10 the word "enabling" and I have wondered if I was smart enough to think of a better  
11 world. And I haven't thought of a better word.

12 To me, the word "enable" is a very good choice. To me, it doesn't indicate  
13 a promotional attribute to our mission and it's an appropriate balance in terms of  
14 many different words that could be chosen, so at least personally I am very  
15 comfortable with the word "enable". I'm happy to see it in your mission statement.

16 If somebody comes up with a better word than "enable", then okay, I'm  
17 happy to listen to it and maybe there is a better word. But I have really thought  
18 about that and I like the word "enable" even though I had nothing to do with  
19 choosing it.

20 By way of questions, maybe to start with Bill and you and I have talked  
21 about this in some of our interactions. How do you see overall employee morale  
22 as you have begun to staff up, you've had to move people around; this would be a

1 question I would ask Jim at the NRR briefing, too. Are we managing to staff your  
2 organization and maintaining people who truly want to be there and maintaining  
3 morale?

4 MR. BORCHARDT: I think NRR did an exceptional job of soliciting  
5 input from the staff as to where they would like to work when the two offices both  
6 existed. It's not that we were able to accommodate everybody's first choice but  
7 everyone was heard.

8 We tried to work in a cooperative method. The two teams of leadership  
9 teams if you will; the two groups of division directors worked incredibly closely to  
10 make those staffing decisions. I would say that a great majority of the individuals  
11 in fact did get the kind of assignment they were looking for; certainly not everyone.

12 The staff that has come to NRO is incredibly energized. They're very  
13 excited about this opportunity. I was especially happy to see how little they were  
14 impacted by the continuing resolution.

15 That was a real opportunity to have morale take a nosedive. I didn't see  
16 any impact. They all just kept on working with the hope that it would work out as  
17 well as it did.

18 COMMISSIONER LYONS: I very much appreciate -

19 MR. REYES: I just want to supplement if I could two things. We  
20 want to fix the space problem and March is a key month. We're going to start  
21 moving staff from this complex to the Executive Boulevard and start creating the  
22 space to provide that.

1           We don't want the staff to work in the conditions they're working in now.  
2           We know it. We see immediate relief. The second part is the employees who  
3           didn't get their first choice, we have good memory. We understand where their  
4           desires are and opportunities will continue. As an opportunity presents itself we  
5           will continue to try to accommodate their choices, their desires.

6           Just because you didn't get your first choice in the first go-around doesn't  
7           mean it's not going to happen.

8           COMMISSIONER LYONS: I appreciate your comment, Bill, and I  
9           also appreciate your mentioning that the activities that went on during the CR  
10          was a great opportunity to generate morale problems.

11          I personally felt, as just one of the Commissioners, that the Commission  
12          was taking the right approach had we been forced to implement it and that the  
13          cuts would have to be made, had we stayed on the CR.

14          I think the direction we were going which would have cut in the new  
15          reactor area was the only thing we could do even though to say that's painful to  
16          me as well as painful to you and your staff is putting it mildly.

17          I still thought it was the only responsible action we could take. I'm  
18          ecstatic that our message was effectively communicated and acted upon by  
19          Congress and that we don't face that problem.

20          COMMISSIONER MERRIFIELD: May I take the opportunity to  
21          concur entirely with that.

22          COMMISSIONER LYONS: You did mention the CR as potential

1 impact and you also during the briefing mentioned the importance of technical  
2 contracting, of setting up the capability for contracting. Without getting into any  
3 detail on specific contracts, I'm just curious whether any of the delays on the CR,  
4 occasioned by the CR, forced you into a situation where you had to delay moving  
5 ahead with some of the key contracts in a way that's not recoverable. I don't know  
6 who that question should best be directed to.

7 MR. BORCHARDT: There were some delays, most notably on the  
8 Vogel early site permit. There was some contract assistance that we had planned  
9 to have occur that we had to stop. That created a month or so delay.

10 We think in the overall schedule that we can recover; there will be some  
11 interim milestones that will slip a month or so. We don't think that's a situation that  
12 we can't overcome.

13 There was some work that we had planned to have done by contractors  
14 that we ended up doing in-house and so that caused some reassignment of work  
15 and a little bit of turbulence within planned work accomplishments.

16 With the timing of resolving the CR issue that will allow us to move forward  
17 now with the major contract activities that will really begin in fiscal year 2008. I  
18 don't see it as having been a huge problem.

19 Any longer, we would have really been in duress. But as it worked out, not  
20 too bad.

21 MR. REYES: I want to give credit to the staff on this. We are on  
22 schedule for the Vogel early site permit for this summer to issue both the draft

1 environmental impact statement and the safety evaluation report with open items.

2 It was an impact, but the staff is on schedule, engaged and this summer  
3 we'll have those two products. I just want to give them credit for doing that.

4 COMMISSIONER LYONS: One of my concerns as we were facing  
5 the CR and reacting to it was that perhaps with some of the contractors you would  
6 lose people off the project as they would be reassigned and be unable to get those  
7 people back.

8 I think from what you're saying that if it's happened, at least has been  
9 addressed and that's very positive that we're able to recover the schedule.

10 MR. BORCHARDT: I think on that particular aspect I don't have  
11 enough details now that we've reinitiated the work to find out if we have lost  
12 individuals. You're right. There is an efficiency loss there if the contractor has to  
13 retrain a new individual to be assigned to our project. I haven't heard of any  
14 adverse impacts.

15 COMMISSIONER LYONS: If you do hear, I'd be curious. I would  
16 kind of expect there would be in some cases where that would occur and it's a fact  
17 of life when there's a CR involved, but if you're able to maintain or recover  
18 schedules, that's fabulous. If we have a second round, I have lots more.

19 CHAIRMAN KLEIN: We will have a second round. Thank you,  
20 Commissioner Lyons. I also would like to make a brief comment on the mission  
21 statement since it was brought up. I appreciate your comments, Bill, about the  
22 clarity of the staff's view on their role because in my speeches I've made it very

1 clear we're not a promoter, we are a regulator.

2 I'll let Commissioner Merrifield talk more about how the word "enabling" was  
3 chosen. When I look at the statement, I tend to focus on safe, secure  
4 environmentally responsible as opposed to the word "enable". I think our mission  
5 is clear. I'm not confused at all on what it is.

6 I'm glad to hear you say that the staff likewise is in that position. I have a  
7 question on page seven. You're talking about your staff milestones in hiring. What  
8 is the mix of new verses those that you borrowed from Jim Dyer, for example?

9 MR. BORCHARDT: The exact percentages, I don't know exactly.  
10 But of the 250 roughly that are in the office now, the vast majority have come from  
11 NRR. Some from NSIR, some from Research and some were new hires.

12 The new hires that have been brought on board - we began hiring in  
13 earnest around October of 2005. All of those individuals went into NRR, even if  
14 they ended up in NRO once it started. The percentage I don't really know. I think  
15 I'd have to get back to you on that.

16 MR. REYES: We can take an action on that.

17 CHAIRMAN KLEIN: In terms of - I think Gary might have talked  
18 about the contracting aspect, what's your long term goal of the percentage of the  
19 work you intend to do in-house versus percentage you intend to do contract-wise?

20 MR. HOLAHAN: The general concept we carry is about two-thirds  
21 technical work in-house and about one-third contracting support. We feel it gives  
22 us enough flexibility to deal with ups and downs and variabilities as Commissioner

1 Merrifield noted. Not every one of those blue bars is equally likely or susceptible  
2 to change.

3 One-third contracting force gives us the flexibility to deal with that kind of  
4 motion in the workload but also allows us to maintain a really substantial technical  
5 in-house capability. That's about the balance we would like.

6 MR. BORCHARDT: If I could. This relates to the point I made during  
7 the presentation. We have the number 355 written down there for FY-08. If we  
8 were to actually restrict ourselves to that number, that 2/3 to 1/3 balance would  
9 change and it would shift towards the contractors. It would be less than two-thirds  
10 in-house and more than one-third by contractors.

11 MR. HOLAHAN: It would be close to 50/50.

12 MR. BORCHARDT: We don't think that the most efficient or effective  
13 way of doing that full workload. That's why we would plan to use the flexibilities  
14 within the budget submittal to take some of that contract money and translated it to  
15 FTE provided the applications really do come in as the chart shows.

16 CHAIRMAN KLEIN: I would also like to comment on the question I  
17 think that Commissioner Lyons raised about the attitude of the people and so forth.  
18 We realize space is a challenge.

19 In fact, that was probably the number one issue until this minor issue of the  
20 CR came along and then we sort of shifted on a real-time basis to solve that issue.  
21 And I'd like to just comment, we had a lot of work by a lot of people on the CR that  
22 was certainly nice to get back and have the confidence of Congress to do what we

1 are here to do.

2 The space issue is one that we have worked lot and I'm hoping we will  
3 move that one forward. I think moving into the new rental space, while not  
4 desirable, it's better than being cramped. One of the challenges on space is just  
5 not having the meeting rooms right now or it's difficult for people to meet. We  
6 need to fix that as soon as we can.

7 Obviously, we're getting in that direction but it is difficult to be dispersed and  
8 not have meeting room space, so I think we're on the way of solving some of those  
9 issues.

10 Regarding the MDEP plan, I think Dave, you might have talked a little bit  
11 about the MDEP. What is your plan for MDEP on AP1000 with the China  
12 arrangement and other things? Do you think we can move in that direction? Let  
13 Gary have that one.

14 MR. HOLAHAN: I had the privilege of going with Janice Dunn Lee to  
15 visit China about three weeks ago to meet with their regulator to see what their  
16 interests were. I think because at the moment China is the only other country  
17 besides the U.S. that's expressed an interest in the AP1000.

18 We didn't talk about this as an MDEP activity. We talked more as a bilateral  
19 activity. In fact, they are very interested in a number of bilateral activities; training,  
20 sharing of documents, inviting our staff to come and watch their inspection  
21 activities during construction. There are a lot of opportunities.

22 I think what will really trigger MDEP is when a third country shows an

1 interest in AP1000. Basically what MDEP would do is rather than have two  
2 bilateral agreements; some sort of a trilateral agreement would make more sense.  
3 I think that's the point at which it would be kind of reframed as an MDEP issue.

4 CHAIRMAN KLEIN: Thanks.

5 COMMISSIONER MERRIFIELD: Mr. Chairman, Gary's visit to China  
6 preceded mine by about a week. I would underscore his point of the depth of  
7 interest that the Chinese, our counterparts in terms of regulatory body, has in  
8 engaging in understanding what we know, getting access to the documents,  
9 getting access to our training programs.

10 I think there's a lot of work to be done. Perhaps it's the lawyer in me.  
11 There are other countries that have expressed an interest in the AP1000 beyond  
12 China. It's just that China has made the additional step of actually committing to  
13 wanting to buy them.

14 That's what you meant; just to correct the record a little bit. There is a lot  
15 more interest in the AP1000, it just that no one else has signed to the dotted line  
16 quite to the extent that the Chinese have.

17 CHAIRMAN KLEIN: Well, Loren, you escaped a lot of the  
18 questions so far.

19 MR. PLISCO: That was my plan.

20 CHAIRMAN KLEIN: Not to let your totally escape, can you talk a  
21 little about the construction inspection activities and how you are training the  
22 people and what you have done in observing in Finland for example, that might

1 help us look at construction in the U.S.?

2 MR. PLISCO: As far as training and qualification, just last month  
3 we issued the inspection manual chapter that provides the qualification and  
4 training program for the construction inspection program. We've just started our  
5 interactions with the Technical Training Center. There's going to be five new  
6 courses that will be required above and beyond what we have for the inspectors  
7 in their reactor oversight process to be a construction inspector. So we got that  
8 in place now and we're going to start getting our staff through that qualification  
9 and training program.

10 We actually had a pilot of the first course Monday and Tuesday of this  
11 week on the overview of the construction inspection program itself and NRO  
12 staff developed that course through some re-hired annuitants that have  
13 extensive construction inspection experience and we had the majority of our  
14 staff and also staff in the other three regions and in headquarters that  
15 participated in that course.

16 It was really a beta test of the course, and then TTC will be taking over  
17 implementing that course. So that was our first course. And the Technical  
18 Training Center is now working on developing the technical courses on the  
19 specific technologies. They're focusing on the AP1000 and ABWR first because  
20 they are certified designs and then we'll develop the other courses as needed to  
21 provide the technical training for our inspectors.

22 And we also have to revitalize the quality assurances training. We have

1 not done that in many years as a primary course for our inspectors but obviously  
2 with the construction that's going to be an important course in our repertoire.

3 Now we have the qualification requirements in place and we're going to  
4 start putting our staff through that as we bring them on board. And for this  
5 program, we developed really, a cross training sheet for an inspector who's  
6 already qualified in the reactor oversight process, what the deltas are and what  
7 they have to do to transfer over. It's really a short list of the qualification  
8 requirements to facilitate their rapid movement over into construction inspection  
9 programs.

10 MR. REYES: If I could supplement that. Something that is not  
11 obvious to everybody, Region II is doing construction inspections as we speak.  
12 The Mixed Oxide Fuel Facility, the LES facility and the American Centrifuge  
13 facilities, so they are using techniques and technical skills on all that and doing  
14 construction kinds of activities in the fuel side of the house. We have a perfect  
15 place to practice.

16 CHAIRMAN KLEIN: I think you used some people from Browns Ferry  
17 as well.

18 MR. BORCHARDT: Some of the staff that worked on Browns Ferry  
19 when Browns Ferry is completed will be transferring over to my group and bring  
20 that experience over to us.

21 In addition to the fuel facility inspections we are participating with NRO staff  
22 on many of these pre-application visits to the sites and the geotechnical visits to

1 better understand the site and activities at the site. We're involved in that too as  
2 part of our initial activities.

3 CHAIRMAN KLEIN: Thanks. Commissioner Merrifield?

4 COMMISSIONER MERRIFIELD: Just to go back a little bit, the use  
5 of the word "enabling" actually came out of an initiative by our former Chairman  
6 Niles Diaz. He was the one who wanted to have that captured there. So I'm  
7 speaking in some part for him since he's no longer here.

8 Going back, there's a certain tension level and we are a regulatory body, we  
9 are not a promoter. It's very clear in the statutory language of the Energy  
10 Reorganization Act. But part of the theory behind that word really reaches back to  
11 our original organic act which is the Atomic Energy Act.

12 The Atomic Energy Act was a clear statement by the United States  
13 Congress, albeit during the late 1950's, that America would use radioactive  
14 materials in the atom for the beneficial uses of the American people.

15 We would use it for medicine. We would use it for power. We would use it  
16 for the many things that has now become ubiquitous in our lives. The rationale  
17 that came about in the Atomic Energy Act was that the then regulatory, the Atomic  
18 Energy Commission, would allow the use of those materials as long as it could be  
19 demonstrated that they are safe.

20 When we were created as an independent regulatory authority that  
21 language did not change. We were to make an independent assessment of that,  
22 whether we would agree that the materials were safe, and at the end of the day

1 the Commission was not to make a value judgment as to the use of materials for a  
2 given application.

3 As long as it could be demonstrated that the material could be used in a  
4 safe way, we would license it. And so, what I think at the time Niles Diaz and I  
5 agree with his thought at the time was that using the word "enable" it would  
6 accurately reflect the statutory obligation of our Commission; and this is if a  
7 licensee comes in and has an application for a particular use of radioactive  
8 material or the use of the atom that as long as we could determine it is safe, we  
9 would allow that application to happen.

10 So, I agree with the Chairman that the important part of the language is  
11 obviously our mission of protecting public health, safety and the environment but  
12 at the same time I think the reflection included within the mission statement which  
13 is reflective of where it came from the overall Strategic Plan was that as long as  
14 we could determine that it met those criteria we would allow it to be used.

15 And hence, the word "enable", which I think accurately reflects  
16 congressional intent.

17 As it relates to other issues, I had a very interesting discussion yesterday  
18 with some representatives who came in and talked a little bit about codes and  
19 standards and how some of the codes and standards committees could play in the  
20 notion of these new plants going forward.

21 I don't have a question coming from that other than I think there's some  
22 value, both as it relates to our licensing process as well as MDEP of engaging with

1 the Codes and Standards Committees to make sure that we are working in sync  
2 and in a logical framework to prioritize the actions that we need to do our work in  
3 line with what the Codes and Standards Committees can do in their regard to  
4 sending out some of these standards.

5 The final issue I've got is a question. It just strikes me - you're talking Loren  
6 about the TTC. Obviously, there's a need not just to hire people; there's also a  
7 need to make sure that they are qualified and certified in order to be able to  
8 conduct the inspection and licensing activities that are underway.

9 I think the Commission needs to think long and hard soon relative to the  
10 TTC in our training. Do we need to start thinking about buying simulators for the  
11 new reactor designs that we have going forward?

12 I'm wondering if in terms of the question, where are we in terms of certifying  
13 the people we brought into the organization. I know we passed the qualification  
14 program in January.

15 Do we have the confidence that we got the right time line to make sure not  
16 just that we've got the people in the boxes but they're trained to do the work they  
17 need to do? I throw it open to the two of you.

18 MR. BORCHARDT: There's a wide variation on how long it would  
19 take an individual to get certified or qualified if they were an inspector. It could  
20 range from a very short, just a few months to for a recent college graduate with no  
21 experience 12 to 18 months. There's a wide range. The majority of the people  
22 coming into the Office of New Reactors are people with some experience.

1           We talked about those from NRR and we're still getting the new hires; a  
2 very impressive level of industry experience amongst many of them. So I think  
3 those individuals will be able to reach the proper certification point in order to  
4 support the reviews and I'll let Loren speak to the inspector piece.

5           I don't see that as being a constraint. We just set out the program. We just  
6 issued the office instructions which lay out that program. It's very similar to that  
7 that exists in NRR for their program. I think we are on a schedule that will support.

8           MR. PLISCO: I think the same for the inspectors. We just issued the  
9 requirements and we tested one course this week. Working with TTC, I think the  
10 long pole in the tent for the qualification will be the technical courses and we're  
11 actually working with NRO.

12           We're trying to develop to be more efficient; a common course that both  
13 reviewers and the inspectors can use on the technologies and I think NRO is even  
14 looking at an interim basis what we call a Delta Course, a course that would just  
15 go over what the differences are between those designs and current designs.

16           I think we're going to use that on an interim basis until the final courses are  
17 developed as far as the technical part. We do have a couple of new courses that  
18 we haven't used for many years.

19           As I mentioned, the quality assurance course and also the codes and  
20 standards training for the inspectors to go back and provide some detail training  
21 on the current codes and standards that will be used in the inspection process.

22           CHAIRMAN KLEIN: Commissioners Jaczko?

1                   COMMISSIONER JACZKO: I just want to close off the enabling  
2 debate. I appreciate the comments of my colleagues. As I said in the onset I  
3 think is a fine line and we're dangerously close to walking that line in a way that I  
4 think is fundamentally counterproductive.

5                   I certainly understand the importance of words and the importance of my  
6 words because I happened to latch onto the word "enabling" and that became  
7 somewhat of the context of the discussion. I think the use of the word  
8 "enabling" in the entire statement is of concern to me and I think it is the entire  
9 statement that causes me concern particularly because of the use of the word  
10 "enabling".

11                  But I certainly hear what my fellow colleagues have said and from their  
12 comment, I think it is pretty clear what the Commission's view nonetheless of  
13 NRO's mission is the exact wording in the statement notwithstanding. I think we  
14 are all in agreement on what you all should be doing. So that is reassuring to  
15 me.

16                  One question I wanted to ask is that - Dave, you mentioned this or Gary  
17 you may have mentioned this; when it comes to the design center working group  
18 and in some cases we're looking at 60 to 70% of the applications being identical.  
19 I wonder if you can translate that in terms of workload. Is that 60 to 70% of the  
20 workload or is there not a direct translation from there into the workload in terms  
21 of reviewing these applications? Is the focus of the work going to be in the other  
22 40 to 25%?

1 MR. MATTHEWS: I'd have to say a sliding scale. If you recall the  
2 design center working group principle is that one of the plants that would be  
3 identified among them would be the reference plant.

4 The expectation was it wasn't with regard to workload; it was with regard to  
5 the commonality between the sections of the application. How that translates into  
6 workload is that there is a limit to the benefits that can be gained by the  
7 subsequent as we call them COL's, and that limit is that the site specific  
8 differences and those portions of the application that reflect those site specific  
9 differences and the environmental review that starts to dictate the resources  
10 needed for the subsequent reviews.

11 I couldn't give you an algorithm that would say how that translates from one  
12 application to the next. But the expectation is that in the technical review area that  
13 that 65% to 75% replication will allow the reviewers on the subsequent COL's to in  
14 effect just confirm the identity between the instant application and the previous  
15 one.

16 I would argue that the subsequent COL's will principally be focused in  
17 resource space on the small differences in the technical issues and of course the  
18 potentially large differences in the environmental review and the site specific  
19 design details.

20 I must say that we're hopeful that even in the environmental area that at  
21 least some of the analyses or the software used to conduct those analyses will  
22 start to assume a commonality, namely the assessment of radiological

1 consequences given a possible release, etc., which start to be standardized as  
2 well.

3 We haven't driven that point home as hard as we have in the design  
4 certification and design area, but we're hopeful that there will be some common  
5 analytical techniques that will be used to further reduce or give us some of  
6 efficiencies associated with the environmental review as well.

7 We are just not willing and we don't have a statistic like I quoted with regard  
8 to the design review to apply from one application to the next in the environmental  
9 area.

10 MR. BORCHARDT: Just to reiterate, the review resources, if the  
11 industry comes in with standardized applications, will be less for subsequent  
12 reviews than they were for the first. We're not going to take that same level of  
13 resources and just be more concentrated on 40% of the application. There will be  
14 a commensurate reduction in review resources expended on the review.

15 MR. MATTHEWS: That was an underlying assumption in my  
16 comment. We have made those estimates as you have seen.

17 COMMISSIONER JACZKO: The last question I have just briefly is to  
18 what extent from a scheduling standpoint and again dealing with some of the site  
19 specific issues are you interfacing with the licensing boards to ensure that their  
20 resource needs will mesh with your resource allocations?

21 MR. BORCHARDT: I'll jump in. I believe we need to do a little bit  
22 more than we have up to this point in coordinating those activities. The chart that

1 we showed early in the presentation was a budgeting chart. It wasn't a resource  
2 estimation tool.

3 It was a rough estimate based on information that we had available at the  
4 time to try to come up with some idea of what the landscape looks like. Now we  
5 may be overdue, but at least now we need to reach out to some of those other  
6 organizations; the boards, OGC. OGC has a huge role in the final preparation of  
7 the SER's that go into the system and understand collectively how we can  
8 accomplish this work in the most productive manner possible. That has yet to be  
9 done. We have an IOU on that item.

10 MR. REYES: We started in earnest the FY09 budget process and if  
11 you look at the sequence, a lot of intelligence and detailed input is now going to fit  
12 into that process.

13 COMMISSIONER JACZKO: I appreciate that. I think the staff in  
14 general has done a pretty good job of working externally in particular with DHS to  
15 start to get DHS educate them about what their commitments are going to be and  
16 what they're responsibilities are going to be here.

17 I don't think we've been as successful in having them develop the resources  
18 that they'll need to do all the work. I think it's important that we start to handle  
19 these things.

20 MR. REYES: I'm happy to report I had a conversation yesterday with  
21 Admiral Johnson and we're going to have a meeting to duke it out. It's coming.

22 COMMISSIONER JACZKO: Thank you.

1                   CHAIRMAN KLEIN: Commissioner Lyons?

2                   COMMISSIONER LYONS: Let me start with a question on operating  
3 experience. I'm not sure to whom it should be directed. I've been extraordinarily  
4 impressed as I've come to learn more about the operating experience program  
5 that we have now. As I've visited many sites, I've tried to ask how they use and  
6 benefit from our operating experience program.

7                   It's clear that that program is having a real positive impact on the operating  
8 reactors. But you've got a different problem here in that you're not dealing with the  
9 operating reactors.

10                  You're going to be, I can imagine, focusing more on international operating  
11 experience. There certainly is a wealth of ABWR and a growing repertoire of EPR  
12 construction, at least, experience.

13                  I'm just curious how we are building the interfaces and building international  
14 operating experience to the NRO program?

15                  MR. BORCHARDT: I think there's two major elements in my mind.  
16 One is there's a very strong and effective program within NRR that we are not  
17 trying to duplicate. We're trying to be a customer of that process so that NRR will  
18 take in the operating experience internationally and domestically and provide the  
19 applicable information to us so that we can revise and inform our reviewers as to  
20 how to revise their review activities and take that into account.

21                  Another and separate activity is the extensive number of bilateral  
22 arrangements that we have with various countries. In fact, we have recently

1 generated generic communication on the construction issues in Finland. That was  
2 very closely coordinated with the Finnish regulator. In fact, they reviewed the  
3 document before we issued it just to make sure we have their perspectives and  
4 their detailed understanding of the issues.

5 There is a great deal of cooperation amongst all of the international  
6 regulators to share that information.

7 That's why we have for many years had a healthy relationship through NRR  
8 and the other program offices, but I'm speaking for NRR because of my personal  
9 experience, and we'll have the same kind of relationship with those countries in  
10 order to share information.

11 MR. HOLAHAN: Can I add one thing? Taking that information and  
12 giving it to our staff is an important element to the program. When I mentioned  
13 earlier that we are developing electronic desktop tools for the staff, one of the  
14 things we're going to do is when a reviewer logs in and says I'm the reviewer for  
15 Chapter 8, Section 2, the operating experience relevant to that subject should  
16 come up to that person.

17 We're developing ties between operating experience and Standard Review  
18 Plan sections just like the regions currently have connections between operating  
19 experience and inspection procedures.

20 COMMISSIONER LYONS: Thank you. I'm very glad to hear that we  
21 are continuing the strength of the operating experience program into NRO as well.  
22 One hopefully quick question, I think, for Gary.

1           You talked about the status of a number of Reg Guides and Standard  
2   Review Plans. Included in our package is a list of where you stand on some of  
3   these. Maybe I overlooked it, but I didn't see Digital I&C in the list. Is that an  
4   oversight? Did I miss it? Is it my oversight? Where are we in terms of review  
5   plans for Digital I&C?

6           MR. HOLAHAN: Let me touch on that. One thing is that there's not a  
7   one-to-one correspondence between Standard Review Plans and regulatory  
8   Guides, so an area like Digital I&C in fact has a number of guidance documents. I  
9   think it has more than 10.

10          In terms of the Standard Review Plan as it's needed for new reactors, we  
11   are comfortable that it will be ready at the end of March and usable by the staff.

12          In terms of Regulatory Guides, we think it will also be a condition that we  
13   can use. But recognize that the Regulatory Guide is going to be influenced by the  
14   ongoing Task Force and Steering Committee on Digital I&C.

15          So it's not realistic to think that the task force is going to complete their work  
16   instantly and it's going to be reflected in the guidance documents this spring. So,  
17   we are a party to that task force.

18          Our immediate goal is that we have enough information available this spring  
19   to conduct our reviews and we think we're there. We recognize that this  
20   information is going to develop naturally and at some point, and I'm not sure when  
21   it is, we'll probably have to upgrade our information on the Digital I&C area.

22          There may be a few other areas, but our first goal is to establish a baseline

1 that will allow us to do the reviews. Just to remind you, we did four design  
2 certifications and three early site permits with the existing guidance documents.  
3 Imperfect as they are, they are useful.

4 COMMISSIONER LYONS: True. But Digital I&C parts weren't  
5 included in the COL for the AB1000, for example.

6 MR. HOLAHAN: That's true, but we have had Digital I&C guidance,  
7 Chapter 7 in fact is the thickest one. We've had it since the mid-nineties. It's just  
8 not to the point that ultimately we would like to take it. It will be usable this spring  
9 and better later.

10 COMMISSIONER LYONS: I appreciate that. As I recall this is an  
11 area where the Commission asked for a separate briefing. I don't know when it's  
12 scheduled, but sometime soon.

13 MR. REYES: The task force is meeting this week. This effort is  
14 ongoing. I don't want you to get the impression - we're meeting this week as a  
15 task force.

16 COMMISSIONER LYONS: Thanks.

17 CHAIRMAN KLEIN: I have a related question on one that  
18 Commissioner Lyons' had asked, not specifically about the Digital I&C, although I  
19 think we're all interested in that one, but more in general.

20 A lot of your guidelines are being updated at this point. I guess my concern  
21 is are we out of phase? We're getting the COL's coming in. Are we giving clear  
22 enough expectations of our requirements to these utilities for these COL's?

1 MR. HOLAHAN: When we say we're publishing these in March,  
2 you've got to recognize that in fact we spent the last year developing what gets  
3 published in March and having a whole series of either draft publications or in  
4 some cases a number of public meetings.

5 There are very few surprises. Last March, with the continuing dialogue with  
6 the potential applicants as to what should be expected as part of their application.

7 There will always be a few odds and ends issues that don't get settled to  
8 the end, but I think there are very few surprises in this process.

9 MR. REYES: I think we need to reflect on the work we have ongoing  
10 and we have prioritized on the Reg Guides. In the past we didn't call that a high  
11 priority in the budget.

12 My pitch here is when we come to you and say the rest of the Regulatory  
13 Guides also need taking care of so we need to make sure in the future budgets we  
14 continue to do the rest. We're doing the ones that are really necessary for the  
15 COL to come down. That doesn't mean there's no more work to be done.

16 We have some legacy backlogs that we need to continue to work on to  
17 make sure we don't get into the situation again. We would have liked to have  
18 them all updated, but that was not in the cards.

19 CHAIRMAN KLEIN: I guess as I've stated before, I think we should  
20 be a tough regulator, but we also have the responsibility to give clear guidelines  
21 and hold the licensees accountable to respond in a complete and accurate way.

22 Okay. Thank you for that very helpful presentation. I think it's one that

1 obviously we are all interested in. You've done a good job and keep up the good  
2 work. I'd like to compliment you on creating and standing up this new  
3 organization. Those are always challenging.

4 I think it's a little bit unique that we have the space challenges right now, but  
5 we'll work to those as well. It's very important that we focus on the people  
6 because for an agency like the NRC, people are our assets.

7 So keep up the focus on that as well. We look forward to future briefings.

8 Any comments from fellow Commissioners? Meeting is adjourned. Thank  
9 you.

10