

UNITED STATES NUCLEAR REGULATORY COMMISSION

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BRIEFING ON STATUS OF NEW REACTOR ISSUES - COLs

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MONDAY, OCTOBER 16, 2006

AFTERNOON SESSION

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The Commission convened at 1:30 p.m., Dale E. Klein, Chairman,  
Presiding.

NUCLEAR REGULATORY COMMISSION:

DALE KLEIN, CHAIRMAN

EDWARD MCGAFFIGAN, JR., COMMISSIONER

JEFFERY S. MARYFIELD, COMMISSIONER

GREGORY B. JACZKO, COMMISSIONER

PRESENTERS:

LUIS REYES, EXECUTIVE DIRECTOR FOR OPERATIONS

BILL KANE, DEDR

BILL BORCHARDT, DIRECTOR, NRO

JIM DYER, DIRECTOR, NRR

BILL TRAVERS, REGIONAL ADMINISTRATOR, R-II

GARY HOLAHAN, DEPUTY DIRECTOR, NRO

KAREN CYR, GENERAL COUNSEL

ROY HAWKENS, CHIEF ADMINISTRATIVE JUDGE ASLB

## PROCEEDING

CHAIRMAN KLEIN: Good afternoon. This is, obviously, the second in a series of briefings and this should be a panel that we all know well that we will hear from today. I thought this morning went well. We heard from the industry. We heard from North Carolina, Florida, Union of Concerned Scientists with issues regarding new reactor licensing.

So this afternoon, we get to hear from the NRC staff. And I should note that this is our first briefing that we have had since we created our new Office of New Reactor Operations. And the important thing that was mentioned this morning is that it's very important that these existing reactors run safely, so it lets us focus on keeping those running while we look toward the future. So I look forward to hearing the brief.

I think the staff has done a great job of getting ready for the exciting times that we are all looking for. It is definitely not an industry in decline at the moment. It looks like it is pretty dynamic. The staff has done a great job. We look forward to hearing from it.

Any comments from my fellow Commissioners? Luis, it's all yours.

MR. REYES: Chairman and Commissioners, the staff is ready to update the Commission on the status of new reactor issues. Let me say just in terms of opening remarks, in order to do any successful project you need two things, one is adequate resources and second one is leadership.

The budget that is expected for fiscal year '07 has adequate resources. Congress has provided us adequate resources, and I know that this morning we discussed -- we don't have that budget quite yet, but we are not slowing down on the activities. We have sufficient funds and we continue to work the topics of new reactors at a pace that has not been impacted by that.

The second one is leadership and I want to modify that to say dedicated leadership. What I mean by that is, you all know Jim Dyer. We are going to change Jim's name. He's going to be Jim, Part 50, Dyer. What I mean by that --

COMMISSIONER MCGAFFIGAN: Is Bill going to be Bill, Part 52, Borchardt?

MR. REYES: Yes. You can look ahead on my slide.

And what I mean by that is we have dedicated leadership to the current fleet of operating plants, and Jim and his organization are fully dedicated to make sure they remain so.

And then as Commissioner McGaffigan said, to my left is, Bill Borchardt, we are changing his name and it is Bill, Part 52, Borchardt, and his organization will be dedicated to the activities for new reactors. So we do have resources and we have dedicated leadership to do both.

Maintaining the safety of the current fleet and taking the task of licensing the new applications that are forth coming. Can I have slide number 2.

COMMISSIONER MERRIFIELD: I presume we will still have somebody still responsible for Part 26.

MR. REYES: We will talk about that in a minute.

COMMISSIONER MERRIFIELD: I wouldn't want that to be forgotten.

MR. REYES: It is in the view graph, sir, and we will be glad to talk about that.

COMMISSIONER MCGAFFIGAN: Our plan is to get it done by 2013. I think, December 31st, 2013.

MR. REYES: I think the goal is the first week of July of '07 -- no.

This view graph, I just wanted to point out -- I just wanted to point out to the Commission, in addition to the workload that we have previously highlighted to you, we have recently been informed of potential obligations in fiscal year '09, and we understand there may be more.

So we understand the task in front of us. It is a big challenge. I think in the briefing today, you will be able to assess that the staff is making good progress on that. With that, let me turn over the presentation to Jim.

MR. DYER: Okay. Can I have slide three, please.

Good afternoon, Commissioners, Chairman.

To prepare for the formation of the Office of New Reactors in accordance with the Staff Requirements Memorandum of July 21st, the staff is implementing an integrated transition plan that will provide for the success of both the Office of New Reactors and continued success of Office of Nuclear Reactor Regulation.

The plan directs the balance transfer of work and resources from NRR to NRO in five steps throughout fiscal year 2007. The first step will be accomplished at the end of this month when the new NRR Division Directors will be in place, the Division of Risk Assessment and Division of Policy and Rulemaking will transfer to their new associate directorates in NRR and Gary Holahan, the Division of New Reactor Licensing and the New Reactor Office senior management team will move to New Reactor Office under Bill Borchardt's leadership to set up the office full time.

The next four steps will transfer branch chiefs and staff to the Office of New Reactors commensurate with the projected work in both offices. Under using the master integrated schedules to project workload, our strategy is to transfer the work and have the appropriate staff transfer to the Office of New Reactors to support that work.

We believe this strategy will effectively manage the knowledge pool of both offices, support timely completion of both operating and new reactor work and prepare for the anticipated new reactor applications at the end of fiscal year 2007.

Slide four, please.

The integrated transition plan is an agency-wide effort. The strong management teams for both NRR and NRO are only possible because of the contributions of existing senior managers from the other program and support offices within the NRC. We solicited interest in new positions in both offices and made selections in the best interest of the agency to the Executive Review Board chaired by the EDO.

Our transition plan supports consistent technical and regulatory decision-making between the two offices. We are working both internally and with our

external stakeholders to look for opportunities to leverage decision-making between the new and operating reactor regulatory activities.

We have also applied lessons learned from prior reorganizations. We recognize from the start up of the Office of Nuclear Security and Incident Response that we could benefit from putting a senior management team and program support staff in place before fully staffing the office. In the post 9-11 era, we did not have the luxury of time that we have now.

The Office of New Reactors management team will have three months to formulate their working relationships and infrastructure before receiving the technical staff and work. Similarly, from the more recent NRR reorganization last year, we have learned the importance of establishing clear and consistent organizational roles and responsibilities within levels of the organization at the outset of the reorganization. Last year, we eliminated a layer of senior managers within NRR and we are just now standardizing the new roles and responsibilities within this organization.

The Office of New Reactors will implement these same standards with their initial organization. We continue to be aggressive in hiring new staff. In the past year, we have hired over 200 staff in the office of NRR. The skill levels of both the entrants and experienced staff has been exceptional. This will need to continue to meet our fiscal year, 2008 needs.

Slide five, please.

In addition to hiring new staff, we have to effectively and efficiently train them as regulators. Both NRR and NRO are taking a page from the Regions in the use of qualification plans. With the number of new hires we are experiencing, we need a standardized approach developing their skills and assigning them work commensurate with those skills.

We recently rolled out a qualification program for safety and environmental project managers and technical staff that mirrors the operator licensing and inspector

qualification programs already in place. By assigning senior staff as subject matter experts for the various topics on the qualification plans, we intend to systematically leverage and transfer the knowledge of our experienced staff to these new hires. This completes my part of the presentation. At this point, let me turn it over to Gary Holahan.

MR. HOLAHAN: Thank you, Jim.

I'll cover current application activities and the number of infrastructure topics, including guidance development, pre-application activities and our rulemaking activities.

These infrastructure activities taken together with the organizational and hiring activities that Jim has mentioned and the integration and coordination of activities that Bill will cover later constitute our overall plan for moving ahead with new reactor activities.

So the specific applications that we have in hand and are dealing with include -- can I have slide six please -- include Clinton, Grand Gulf and North Anna early site permits. We are just beginning the Vogtle early site permit. Grand Gulf and the Clinton early site permits, the final safety evaluations and the environmental impact statements have been completed. Both of those are in hearings at the moment, and we are going through the process of answering questions from the Board, and we expect that the Board will hear direct hearing activity from the staff in November and those are moving pretty much on schedule.

North Anna, which was the third of the first three early site permits, if you will recall, they made a change to their design early this year, I believe, and that required a substantial re-review. I believe we are on revision 8 or 9 of the North Anna early site permit. We are on schedule to complete the final safety evaluation and the environmental impact statement by the end of this year and then we will move early next year into the hearing process.

The Vogtle early site permit was accepted in August. We have already conducted a number of public meetings, and we are on our course with a planned 21 month review.

The design certification that's in-house currently is the General Electric ESBWR. It was submitted first in August of '05. We had a number of issues associated with its completeness. At the acceptance review stage, it was resubmitted by General Electric in October of '05. We completed our acceptance review 30 days from then and we basically started the clock. When we do that, we actually start the clock at the time of the application. We don't start it at the time of our acceptance. So our standard template begins at that time.

Since then, we have issued a number -- in fact, a large number, more than 2,000 requests for additional information, and we are proceeding on that review. We are one year into the review. We have had some slips in the schedule.

General Electric has been a little bit behind on some of their submittals, generally, on the order of, perhaps, a month, sometimes three weeks. We have been trying to keep the schedule as tight as we can.

The original plan was to develop a draft safety evaluation with open items within 24 months. We are still sticking to it. That would be in October of '07, just 12 months from now. Our plan is to continue on that schedule.

The extent to which GE closes the current open items and answers the RAIs will determine how many open items there are at that stage. And the exact period of time it takes to close after the draft SER with open items depends exactly on the number and the nature of those questions.

For planning purposes we usually say 12 to 15 months. That remains to be seen since we don't have at this point, a good picture of how many open items there will be.

Can I have slide seven.

In parallel with these application activities, I would say an enormous amount of activity has been taking place in terms of developing the tools to do all the early site permit and combined license reviews.

I think a major milestone was reached recently when the draft guide 1145 --



and I think the Commission has seen it, I was going to bring my copy – it's about 4 or 5 inches thick -- was issued for public comment. It was first -- draft version put on the website back in June.

I have to acknowledge to Commissioner McGaffigan that our activities to put more things on the website and get more stakeholder participation both here and in a number of our rulemakings, I think, was inspired by his pressing the staff to do so.

COMMISSIONER MCGAFFIGAN: And former Chairman Diaz.

MR. HOLAHAN: And I think it has been helpful in the process. We have had quite a lot of interactions. So the draft is out for public comment. It addresses expectations for an application with and without a combined license, with or without an early site permit and a design certification or an application -- basically, anything from a custom application to one with both an early site permit and design certification. And it is instructive just to look at the document to see how much information needed by the staff changes, whether there is an early site permit or a certified design involved, it has a big impact.

We expect to issue the final guidance document following along with the Commission's approval of Part 52. So at this stage, we will consider Draft Guide 1145 to still be a draft condition. For planning purposes what we say is we are prepared to issue it as early as January, should the Commission deal with the Part 52 and direct the staff to issue that within that time frame.

As you will hear later, Part 52 is still on schedule for an October 31st submittal to the Commission. No sooner and no later.

COMMISSIONER MCGAFFIGAN: I believe that's a Tuesday.

COMMISSIONER JACZKO: I think that's Halloween.

COMMISSIONER MCGAFFIGAN: You planning to distribute Halloween candy at your house?

MR. HOLAHAN: We're giving away copies of Part 52.

COMMISSIONER MERRIFIELD: I hope it is a treat, not a trick.

MR. HOLAHAN: Commissioner McGaffigan should appreciate that November 1st is the beginning of a Celtic new year.

Can I have slide number 8.

Another major activity in infrastructure is the activities we have undertaken to update the Standard Review Plan and the Regulatory Guides. Standard Review Plans have been around a long time, and we have made attempts to update them. In the past partial updates were done in the mid-1980's, but they were never really completed. Some additional activity was done in the '90's, and a few specific topics were individually updated, but the whole collection of nearly 300 Standard Review Plans, I think, has never been updated probably since 1968. I guess I should give Commissioner Jaczko some credit for pushing the staff in the direction of getting that done.

We originally sat out with a three-phased approach to identify Standard Review Plan items that were most critical to the new reactor applications and then going on and picking up some of the additional issues in a second and third stage.

When we laid out our full plans for doing the early site permit and combined license reviews over the next few years, it becomes relatively clear that we don't want to be changing the rules of the game or the guidance documents while the applications are in hand. That it was not the best plan to do so.

And so in fact, we have accelerated both the phase two and phase three so that virtually all of the Standard Review Plan activities will be up-dated by March of '07 pretty much in advance of any of the COL applications. In fact, the current version of Part 52 and in our revised draft, both refer to calling for the application for a combined license to address or to evaluate their application against the Standard Review Plan that was in effect six months before the application.

So we are trying to take a stable set of Standard Review Plans with a March '07 date to make it very clear what evaluations are being done against. In terms of the Regulatory Guides, there are, in fact, more Regulatory Guides than even Standard Review

Plans. The Office of Research had the lead on the subject, and, I think, has also done an extraordinary effort to identify those Reg Guides that are critical to new reactors, some 63 or 64, I believe. Well on their way to having those completed and in place by -- also by March of '07, which I think was a substantial acceleration of their effort as well. I think both of these are large efforts involving numerous disciplines with a lot of stakeholders.

On Draft Guide 1145 we had seven workshops. On the Standard Review Plan and the Regulatory Guides, we had two additional public meetings. And individual Regulatory Guides or Standard Review Plans are subject to public comment and ACRS review, depending upon the nature of what is being changed in them. A number of them are being up-dated, but in fact, there are no new requirements or new technical issues. So those are being done kind of on a case-by-case basis.

Can I have slide number nine, please.

You heard this morning that a number of the design centered working groups and vendors have identified what we call topical reports and they are referring to as technical reports. They really are the same thing.

In order to get early activity, and hopefully, resolution of important topics even before the combined license applications come in, we have encouraged this consistently because we recognize that it adds to the stability of the process for the vendors and the applicant to know where we stand on issues, or in fact, have issues resolved early on. It is also an important strategic element in our overall plan.

When the EDO showed the first view graph today, you see there is an enormous workload associated with COL applications in 2008 and 2009. One of the things we can do to reduce that workload to a certain extent is to move issues up into 2007. To the extent that we can get a head start on some of these issues, it makes it easier to get through 2008 and 2009.

EPR, AREVA on the EPR review identified this morning that there are 20 plus planned topical reports. There are a number of them in-house. The AP1000, in fact, has an

even larger number. This morning they mentioned about 71 topical reports, and a number of those are in-house.

The pre-application activities have also been an opportunity to work through some potential design changes that the applicants or the vendors have identified and to get those dealt with as early as possible in the process.

We are also looking at topical or technical reports as a mechanism for addressing programs like quality assurance, for example, but also potentially, for dealing with security, early emergency preparedness and other issues to the extent that we can.

And in fact, we have encouraged the use of the pre-application review in the environmental area also. You heard this morning that at least under some circumstances the environmental reviews could become critical path. One of our goals is to identify potential critical path issues and try to bring those into the pre-application activities.

This will both increase efficiency and will also make sure that we are early on putting the appropriate attention on safety issues and not giving it too much of a squeeze.

View graph number 10.

Additional pre-application activities are ongoing. For example, oversight of site characteristic activities, whether it's for an early site permit or for a combined license. And also, pre-application activities have been an important element of our design centered approach and our interactions with the design centered working groups.

These are mechanisms for identifying additional pre-application activities. I think have so far been productive. We probably won't see the actual benefit of all these activities until we get into the review and see how much of the application has been influenced by the pre-application activities. We are pretty much committed to review technical topics once, and if we can get them done in the pre-application review, it should simplify the application reviews.

Can I have number 11.

Rulemaking. As the Commission is well aware, there are a number of

important rulemakings associated with new reactor activities. And a few of these rulemakings affect both operating reactors and new reactors.

COMMISSIONER MCGAFFIGAN: A note to Commissioner Merrifield they left out Part 26.

COMMISSIONER MERRIFIELD: It must be Rev 2 of the slides.

MR. HOLAHAN: It is coming. It's coming. I tried to get out of it, but it's coming.

I have to say that I was on travel the day they decided who was going to talk about Part 26.

CHAIRMAN KLEIN: So you drew the short straw?

MR. HOLAHAN: I'm afraid so. Part 52 is probably the largest and most comprehensive rulemaking associated with the new reactors. It will be delivered to the Commission in October, 31st as promised. It was put on the website the end of last month to make it available for stakeholders to see where we were.

We have had a number of meetings, but there are so many pieces to it that I think stakeholders wanted to read it as a package. We have had at least one meeting with -- one public meeting post publication of the rule. It's pretty clear we have got some comments from NEI that there were still parts of the rule that they don't quite understand how it will work out. I think there are a number of areas in which we have been thoughtful and responsive to a number of stakeholder inputs.

COMMISSIONER MERRIFIELD: Just to clarify, one of the issues that was raised was that some of the information to clarify what we intended was encompassed within the statements of consideration, and some request to try to get those on the web as well. Have you all thought about that?

MR. REYES: We will submit that to the Commission. It is a Commission decision whether to put them out or not, so that's where we are. But we are delivering on schedule here the 31st.

MR. HOLAHAN: That's basically the approach we have taken, that Statements of Consideration is the Commission's statement and it is -- I guess we did not feel free to put it out without giving the Commission the opportunity to see what words we were putting in their mouth even at a draft stage.

COMMISSIONER MCGAFFIGAN: The rule is the Commission's rule. You felt comfortable putting the rule out. Did Diaz, McGaffigan make a mistake in our language. I thought we gave you flexibility to call them as you saw them. It isn't ours until we actually vote on it. It's yours.

MR. HOLAHAN: We could do that. It's not in the same state of completion as the --

COMMISSIONER MCGAFFIGAN: That may be the real answer.

MR. HOLAHAN: Well -- no, I think I made the decision, and I think I made it based on the not being comfortable that this is, in fact, what the Commission thinks about those pieces.

COMMISSIONER MCGAFFIGAN: Mr. Chairman, just a comment, On November 9th, we are having this briefing where the industry is going to comment. And you know, presumably, we're going to make this available pretty darn quick after October 31st in order for them to be at least a little wise by then. So you know, it's a question of October 31st or earlier. And the more time they have to pour over what is most likely to be multiple hundreds of pages of consideration language, the better -- the smarter they are going to be in commenting to us on November 9th.

CHAIRMAN KLEIN: I think, from my perspective, the sooner we can get it out, available for comment would be beneficial. I don't know what you think.

MS. CYR: I would just say, there is still significant debate among the staff on certain issues of that. There may need to be some caveats.

CHAIRMAN KLEIN: I think as soon as -- let's just phrase it as soon as we can get a consensus forward for the Commission. I think our sense is that the sooner we can

get it on the Web, the better.

MR. HOLAHAN: Okay. We can do that. In fact, the parts that are not complete, we can put parts of it up. You don't need the whole thing in order to understand many of the issues in contention.

COMMISSIONER MCGAFFIGAN: It will give you a guide post as to where the staff and OGC are having some trouble finishing things, but that's okay.

CHAIRMAN KLEIN: We can check with our General Counsel and see if there is an agreement on certain sections that can go up.

MR. HOLAHAN: With respect to the rule itself, the package to the Commission is in concurrence. There have been a number of difficult issues. We met just last week with OGC on one of them and I think we have come to agreement. I think it is coming together well.

The Commission looked at a limited work authorization proposed rule to change that area. Staff Requirements Memorandum went out early this month. The package was put out on the website shortly thereafter. The official Federal Register version for comment should go out by tomorrow. That will start a 30 day comment period.

What we are really looking for is as the final rule on Part 52 gets to the Commission and to be looked at near the end of this year, that the proposed rule on limited work authorization should catch up to it at some point, because the references and the integration that needs to be accomplished. We are hoping that maybe as early as January, it does depend a little bit on the comments that are received and the Commission's dealing with each of those rules.

So early next year, final Part 52, limited work authorization catching up with it, and our final publication of Draft Guide 1145 with any changes necessary to reflect whatever the Commission tells us to change in either of those rules. So those will all come together plus the guidance documents, we expect by the spring of '07 to have almost all the tools in terms of -- except for the ones on the next page -- the tools available to deal with

applications expected in the fall.

There are two additional areas of rulemaking that I want to talk about. One has to do with security. The other has to do with fitness for duty and so they are closely related.

Security assessment proposed rule 73.62 was sent to the Commission at the end of September. This is a rule where I believe the Commission has instructed us to have the final rule in place by September of '07.

We also have direction from the Commission to look at the issue of additional vulnerability studies that the staff might propose as research activities in parallel with the security assessment rulemaking for new reactors. And we will get that to the Commission shortly to allow the Commission to direct the staff on how to proceed on the security assessment for new reactors.

Physical security proposed rule is also moving along. This one also is now due, I believe, September of '07. We expect it to be published late in this month at the proposed rule stage. So those two security rulemaking pieces we expect to be done not by the spring, but by a little later in 2007.

Next view graph.

Part 26 Fitness for Duty rulemaking. This is addressing both operating reactors and construction sites and we are still dealing with some of the final details, particularly in the construction area.

Our commitment is to put the proposed rule language on the website by the end of this month. And in fact -- I'll make people nervous by saying we may actually do it by the end of this week.

MR. REYES: We are going to make it publicly available this month.

MR. HOLAHAN: Maybe this week.

MR. REYES: This month for sure.

MR. HOLAHAN: This month for sure. They told me they could do it by the end



of this week. So I didn't see any reason why I shouldn't put them on the hook.

COMMISSIONER MCGAFFIGAN: Halloween is a great day.

MR. HOLAHAN: It's clear that the issue that staff is struggling with is how close and what relationship ought such a program for construction to have to an operating reactor program. Clearly, the issues are different. There are no immediate safety concerns during construction. Although, there are some concerns about how you could affect the facility or allow information to get out that might be of some detriment to the future operation of the plant.

So, the issues that are being discussed are who should be covered by an access authorization rule, who at the site? Who should be covered by a drug testing or observational program? Exactly what are the details of such a program? How can you grade this program to be appropriate to safety at a time when there is construction going on, but there is fuel on the site and there is no operation?

So we have had some draft positions and we're fine tuning those and those will be available by the end of this month. We will deliver that final rule language, because it has been out for comment for quite a long time to the Commission by December of this year.

An additional topic in rulemaking is Section 20.1406, which has to do with the subject of -- really of decommissioning and cleaning up the plants, but its focus is on -- I know I'm in trouble now.

What the rule intends is that when a facility is being designed and constructed, reasonable measures are put in place to minimize the amount of contamination, and therefore, facilitate the decommissioning of the facility at time that it is decommissioned. And it's clear from the experience with tritium releases that it is much easier to deal with a situation in which you either prevent or find any contamination early on rather than trying to deal with it at a late stage like decommissioning.

So the proposed rule is under consideration. Currently scheduled to go to the Commission in March of 2007. There is some discussion going on as to what sort of

guidance document or Standard Review Plan the staff needs to have in place to review it. The rule is relatively simple. Commissioner Jaczko looked at it and said I believe it's one sentence -- it could be two, but I think it's one.

And it is currently a rather performance based rule. It says do good with respect to the design in order to minimize contamination. The staff is considering whether some additional more targeted words ought to go into the rule to call for specific features monitoring type activities and whether that is an appropriate thing to do. So that will be worked out through March.

I understand from some of our discussions with the industry that they are considering a guidance document that could be written against either the current rule or revised rule, which the staff could then consider in terms of referencing it or a modified version of it either a Standard Review Plan or Regulatory Guide. So the details remain to be seen, but the subject is on our plate.

And now, let me turn it over to Bill Borchardt.

MR. BORCHARDT: Slide 14 please.

The number of new reactor projects that you saw on slide two and the complexity of all the interdependencies that are needed to successfully complete those reviews and the wide range of all the different organizations that are involved in those review activities make it imperative that we focus on coordination and communication.

We have taken advantage of the experience and lessons learned from NMSS on the high level waste activities, and therefore, created a business process integrator position within the office that will help foster effective communication between all of these different contributing organizations.

The staff of New Reactor office, NRR, Region II, INSER, Research and all the support offices have been and will need to continue working very closely together in order for us to conduct high quality safety reviews on aggressive schedules.

In addition to the NRC staff, we are all well aware that the Department of

Homeland Security plays an important role in these reviews in both the emergency preparedness and security areas.

We are taking advantage of the opportunities to keep a wide range of stakeholders informed of our progress and plans. The serious office space situation is going to make effective communication within the new Office of New Reactors even more important.

We're currently developing the office infrastructure, things like office instructions, staffing plans, our internal web page that are necessary for the new office to functional effectively.

We estimate that each review activity that you see on slide two will consist of over 3,000 lines of schedule. That shows all the various interdependencies, relationships, all the sections of the Standard Review Plans, the internal and external stakeholders that are involved in each of those activities.

Based on the current industry forecasts, that 3,000 per review ends up being on the order of 80,000 lines of schedule that needs to be managed on a parallel basis. This fact illustrates why it's important for us to have a disciplined design centered approach and why we need the industry's cooperation like we talked about this morning, for them to prepare high quality applications that maximize standardization and that they exercise their own scheduled discipline.

The region two construction inspection organization is being put into place and they have recently moved into their new location in Atlanta. The Region II and new reactor staff continue to make progress on developing construction related programs like the inspection and enforcement programs for construction. The oversight program or what the ROP will become for new reactors during construction. And the scheduling system that will fully integrate the ITAAC completion, components manufacturing schedules with the NRC oversight activities.

So the next presenter is Karen Cyr, I believe.

MS. CYR: I would just like to talk you briefly about what OGC is doing to undertake a strategy for being ready for new reactor reviews.

Last spring, we reorganized to create a dedicated division to work with the new reactor programs. This has permitted them to undertake such activities as working closely on developing the master integrated schedule and looking for those places where OGC can most effectively participate and the time sequence we need for those kinds of activities.

Working on the Reg Guide DG-1145 was a big activity we had this summer. And right now, we are heavily involved in working on the mandatory hearings for the early site permit. So that's what been occupying that group principally up until now.

Our expectation is that as the program grows, we are beginning to add, will add team leader positions, which we hope will follow the design centered approach that we will have a team within that division which will work with each of the various designs and be able to follow them pretty much through from review stage through any hearing process that goes on with respect to those. So we are trying to sort of grow the organization along those lines. Presuming that the schedule permits to us do that and the work load balances out as we are predicting at this point and time.

With respect to the second activity, our staffing strategies, we are continuing to use a combination of entry level and lateral hiring to increase our OGC staff. We are continuing to use our Honor Law Graduate Program to attract entry level hires, which we really began in earnest in 1998. It was very effective for us for several years and we thought we were really golden on that in terms of our retention strategy; but then we sort of came back to earth and got more in line with what most legal offices are in terms of having a retention strategy.

So we -- last year we began doing more entry level hire -- mid-level hire as well. We have been pleased with the people we have been able to attract through our mid-level hiring and we now have a number of positions, which we are posting as open until filled. And hoping that we will continue to have our success in terms of attracting people

through the mid-level hiring program as well.

In addition to the attorneys, we are hiring paralegal litigation assistants to provide litigation support and so we have several postings for those positions as well. We are also nearing completion of our interviewing process to hire a full-time recruiting professional development coordinator for our office, which will again be able to continue focusing on new hiring, but also on the training and knowledge management activities that we are also putting in place to continue to keep us prepared for this organization.

On the training and knowledge management activities, we leveraged the SES candidate development program and leadership potential program candidate projects to focus on areas for improvement in our training and knowledge management. We did some lessons learned with our recent hires in the last two years to see where we could focus our programs.

We came back with recommendations to develop much more focused training on needed skills earlier on in the process for when they became available, and also to allow us to get -- again, have training programs modules that would be available both for new attorneys coming through the Honor Law Graduate Program, but also mid-level hires who would be coming in with basic legal skills, but wanting to know more specifically how activities functioned at the NRC.

So we have identified those training modules that we need to build and we are in the process of trying to put those together.

Our program, I think, is going -- we're looking for some insights from what Jim Dyer identified there in terms of developing a qualification plan, a more formal qualification card program for their project managers, and we are looking to set up something like that which is available for new hires as they come in.

This is a very structured kind of training module program that you need to go through and over time and what period of time you need to be able to get through that in order to be able to undertake certain activities, so that they have some confidence about

what it is they had needed to do and how they are able to get those skills built on and as quickly as possible for us to be able to use them in our program.

On the knowledge management front, we are again, trying to use take advantage of some of the technology tools that the agency has developed. We're using our web page, and also hoping to build on some of the new technology, the share point kind of activities which allow even more team collaboration to develop a community of practice among our litigation attorneys to allow them more readily share the lessons learned as they are moving through the process for the new reactor hires to let them understand what issues are coming up in particular cases, how they may learn themselves in the sense of gaining efficiencies and handling those activities.

We also have several current enforcement cases that are ongoing, which have large documents for management and we are using these opportunities to develop greater understanding and skills in using litigation support software for handling complex cases. So we are hoping that those skills will be able to support our new reactor activities as they come along.

Obviously, we will continue to face challenges on the recruitment and retention front. It is becoming increasingly difficult to compete in the Honor Law Graduate entry level hiring, but again, we are hoping that the success we have had with mid-level hiring will balance out our ability to attract and retain Honor Law graduates.

So far we have been able to continue to have people here with the program, our attrition rates have increased somewhat. We're making full use of our student loan repayment program and a recruitment bonus program to get people here, and we hope that with some of our training refinements it will help attract people, but just given the reality of the situation, I think it is our expectation that we will continue to have some significant turnover in terms of the attorneys but feel we have a strategy in place to hopefully account for that. Thank you.

JUDGE HAWKENS: On behalf of the ASLBP, in preparing for the new reactor

applications, we will be performing two functions. The contested hearings which we are comfortable that we are well experienced and well positioned to do that.

It's determining whether the petitioner has demonstrated standing, whether they have satisfied the requirement -- the pleading requirement and a well-supported contention, and then just performing the traditional adjudication functions.

The other functional is the non-contested hearing or mandatory hearing, and in this regard, it is a little bit atypical for a judicial body to be performing this type of function, because it's more in the nature of a traditional executive technical review rather than an adjudication where you have opposing parties in the adversarial process defining the issues and the parties briefing and arguing them and then the judges, in turn, resolving the issue that's been brought to them by the parties.

In the mandatory hearing process we will, instead, be required to take a look at the staff's significant decisions determining whether they find a fair support in law and logic and whether they are adequately supported in the record. And although we have heard there may be legislative changes affecting the mandatory hearings or even regulatory changes that may alter the scope or place this responsibility on a different body, the ASLBP is proceeding as if it will be required to handle both the contested, as well as the mandatory hearings. And it's preparing for that by looking at getting additional both technical judges and judicial and legal judges on board.

We have announcements currently out, and as well as part time hires. We are looking for innovative way to attract the technical judges, because it's very difficult in the current environment to get them on board in this area, and so we are looking at ideas like allowing them to have remote work stations and are trying to be flexible in our dealings with them.

For new hires, we have an extensive training program and we have a continual training program as well for our current full-time judges. Technical training directed primary at the legal judges and legal training aimed primarily at the technical judges.

And for the mandatory hearings, as you are aware, we currently have several ongoing, and we are going to be conducting internal and have conducted internal training trying to benefit by lessons learned in the current proceedings as well as to discuss how additional efficiencies and economies may be accomplished in the future. Thank you.

MR. REYES: That completes our prepared remarks and now we are available for questions.

CHAIRMAN KLEIN: Thank you very much for that good background presentation.

COMMISSIONER MERRIFIELD, would you like to start?

COMMISSIONER MERRIFIELD: Yes, I think I would like to start going back to this morning some of the issues that were raised so you all can take a crack at them. One of the issues that was raised by a number of panelists was the approach you were using for requests for additional information. And is there a way of refining our questions in such a way so it's clear to the applicant what we intend, and having an appropriate level of oversight and discipline on those.

A couple of issues that were raised should we have -- and obviously, at some point the senior manager is going to sign off on those; but do we have the right level of specific oversight to say yeah, this is something we really need to get some information on or gee we really ought to know that in our knowledge banks.

And the other issue was some kind of justification or explanation, very short perhaps, of why is it that we need this information or why is it that the application does not provide us sufficient information to come to that resolution? Any response to those?

MR. BORCHARDT: Commissioner, I think we agree with the intent of the comment wholeheartedly. In fact, we have in place already many of those controls. RAI must relate to the regulatory finding that the staff needs to make, so it is related to the Standard Review Plan that the staff is using to help them do that evaluation.

Every RAI has to go through various level of management oversight before it



gets sent to the licensee. So there is that other check. The real benefit that we are going to see in this area is if we can really take advantage of the design-centered approach, and that requires the industry to really be standardized in their application. And I think we will see a dramatic decline in the number of RAIs for subsequent applications, because all we will need to do is verify that there is that common information in the application and that will preclude the need for the RAI, because we would have already asked enough questions to make the regulatory determination that we need to make for subsequent applications.

COMMISSIONER MERRIFIELD: I appreciate that degree of consistency and certainly, based on those notions we can certainly continue following and make sure we got you all --

MR. HOLAHAN: Can I add something to that?

COMMISSIONER MERRIFIELD: Okay. I don't have much time.

MR. HOLAHAN: Okay. We're going to follow up because of the large number of questions particularly on the ESBWR and see if we can learn some lessons about what made the large number of questions. And although we have controls in place, is there something we can do to enhance those, to make them more targeted or to eliminate the need for them in the first place.

COMMISSIONER MERRIFIELD: One of the other issues that came out was the concern about a review of digital I&C, a concern that in 2009 you are going to have to start ordering simulators. Where are we -- are we on track with that one? Where are we?

MR. REYES: Let me take that one. The 1145 is out and it includes guidance on digital I&C. On Thursday we have a meeting with the industry to talk to the staff to walk through the four or five key issues that they have concerns with in preparation for the Commission meeting on November 8th. So I think the answer is we're working through the issues. We don't have all the answers, but we are working through the issues.

COMMISSIONER MERRIFIELD: Bill Borchardt, you mentioned or alluded to a construction inspection ROP. That was an issue that obviously, David Lochbaum brought

up. Can you, perhaps, go into a little bit more detail about where you are coming from there.

MR. BORCHARDT: Well, we recognize that it needs to be done. I guess, that's the first step. We have just begun discussion with Loren Plisco and his team in Region II and among our own staff. And what we are trying to do is find the balance. It clearly has to be performance based, because as David said this morning, it can't be risk based. You don't even have fuel on site for most of this.

So I think there is a general consensus that we need some kind of STP type of too, something that provides the benefits of an ROP program and that it's predictable and transparent and has those attributes. It is going to have to be performance based, not so much risk-based. That is probably at the highest level about as far as we have gone at this point.

COMMISSIONER MERRIFIELD: Well, as time goes on certainly, I'm sure, David will provide you with some suggestions of things that he thinks ought to be in there. I look forward to reviewing those as well.

MR. TRAVERS: Commissioner, we intend to make that a process where we go out there and have some public meetings and take the benefit of stakeholder input. We have, by the way, an inspection manual chapter reserved for a performance assessment program that we intend to put in place. Some call it COP.

COMMISSIONER MERRIFIELD: I have lectured the staff before about being too cute on acronyms. I don't like acronyms to begin with, but I hate cute acronyms.

Turning to slide two, which is becoming a sort of famous, yet, growing list of potential applicants, more and more of whom are willing to announce themselves. I do note when you see this some of these are withheld for folks who have not yet made themselves apparent and who may or may not make themselves apparent, and there may be some degree of this being an aspiration rather than reality.

How are we grappling with these slots here where we don't have a specific licensee?

MR. REYES: Well, we know who they are. But whether it's going to come to fruition or not, I could not predict it, but what I can tell you is that Gary mentioned all the work that's being done to culminate a lot of the infrastructure for March of '07.

We have work that needs to continue to be done. So if some of these projects were to be delayed or not show up at all, we still have a lot of work to be done that we are pacing because of the front work. So our plan is, we have to plan with what we know. Everyone of these individuals have provided us a letter. Whether the letter is public or not is a different issue. So we believe and we have to plan accordingly that these applications are coming in.

COMMISSIONER MERRIFIELD: Unless you have got some letters you haven't shown me some of these are reserved for folks who have not yet specifically said they are going to seek a license.

MR. REYES: No, every one of these lines here we have a letter on. The letter may not be as specific like if you talk about Unistar, EPR number 3, 4 and 5, we have a letter that says that.

COMMISSIONER MERRIFIELD: Do you have a letter from that specific licensee?

MR. REYES: No, not from that licensee.

COMMISSIONER MERRIFIELD: That's what I mean. Certain aspiration for that which may not be reflective of a specific licensee.

MR. REYES: Correct. We know who the intended victim -- we know who the person being considered is, but we don't know if he is going to show up or not. So we have to plan with what we have in front of us. The point I was going to make was it's not for lack of work. If some of this work does not materialize exactly the way it is there or one is shown here, we have this other work that we need to do. So I don't see a big problem initially.

Now, if we keep seeing a significant change -- so far the list keeps growing, it is not shrinking. The FY09 announcement, some people who are considering announcing for

'09 and 2010, which we are aware of. So my point was the list is growing up. Whether everybody is going to show up on time, I don't know.

MR. BORCHARDT: In addition to the infrastructure work Luis was talking about, just repeat something Jim Dyer said, we are not going to transfer staff until the work is ready to come into house. So we're not going to move people from NRR to New Reactors and have them sitting around waiting for an application.

If there were significant delays, they would stay in NRR and continue on operating reactor work until the work arrives.

CHAIRMAN KLEIN: I think probably the challenge is hiring, you know, in terms of how do you sequence the hiring and training?

MR. REYES: And what we are doing is we are assuming every one of these projects is coming on board and we are having the FY '08 ceiling like it was presented, and if things were to slow down, we will then slow down the hiring.

MR. HOLAHAN: May I add. We have put a shock absorber in the system, and that is, in both the '07 and '08 budget there are a significant amount of resources for contractors. And so, for example, in the '08 budget, for new reactors there were, in effect, the equivalent of 150 contractors. So we can keep the staff working on new reactors and reduce or if the Commission gives us resources to increase the number of contract support. And that was intentionally done so that the staff levels don't have to go up and down as the applications come and go.

COMMISSIONER MERRIFIELD: All of which as it was alluded to this morning, is incumbent on appropriations and the space to put every one.

CHAIRMAN KLEIN: Commissioner Jaczko.

COMMISSIONER JACZKO: Just a couple of comments on some of the issues that have come up so far. One, I think, you know, it does trouble me a little bit -- while I appreciate the idea of the shock absorber, it does trouble me a little bit on heavy reliance on contractors if one of the things we are trying to do is improve and establish an efficient

process.

There has been a lot of talk about RAIs, and about the number of RAIs, the rounds of RAIs. You know, it certainly raises a lot of questions that if we are relying so heavily on contractors that we may have difficulty resolving some of those issues. I certainly think it is important that we look at these things kind of collectively.

I wanted to follow-up a little bit on the issues of -- I think, Bill, you touched on what the ROP is or will become -- both Bill's, I guess, touched on it. One of the areas, I think, just more in general that I have some interest in is really how we intend to do enforcement during the construction period, given, as was discussed a little bit this morning, the ITAAC, plays such an important role in measuring our progress going through the license application -- or actually, assuming an application is accepted into the construction phase.

I'm wondering how those two things -- you see them interacting -- perhaps, Karen, you could comment on this a little bit -- in how we really -- if we can do enforcement in really, I guess, more in the traditional sense or even with the ROP, if that enforcement is, I guess I would say, inconsistent with an ITAAC.

If the ITAAC is ultimately the important issue as we go forward and if something satisfies an ITAAC, yet, we recognize that there is a problem from a -- perhaps a traditional enforcement problem. How do we reconcile that difference?

MR. REYES: Let me -- before I turn to the staff, there was something very important that was missed this morning and it was lack of time, but let me go back briefly. I know we are short on time. One of the things that we learned.

COMMISSIONER JACZKO: Let's get to the question I asked first. If it's related to that, please; but if not, I would like an answer.

MR. REYES: Because everything was overlooked this morning when it was talked about ITAAC. One of the things we learned was the inspection program as the plant is being built, and none of that was talked about this morning. And the examples were given, since I was personally involved with it, let me just talk about that.

COMMISSIONER JACZKO: Actually I'm -- very little time. I'm actually interested in this question of how the ITAAC and enforcement will work together.

COMMISSIONER MCGAFFIGAN: Mr. Chairman, can we give Commission Jaczko an extra couple minutes, so that Luis can give the answer to the question?

CHAIRMAN KLEIN: We will let you give the background and then answer the question.

MR. REYES: Sure. What we did is, we learned from those construction projects that we needed to staff the sites differently. In the early construction days, there was nothing called a resident inspector. It was a very small number of inspectors assigned to a large project.

And we did a self-assessment and concluded, and we are going to implement that in this new wave of plants, that we will have a large presence on-site of inspectors that are there 24 hours a day monitoring from when the back fill is being set in through the pouring of the concrete, et cetera, et cetera. That is what was missing this morning from discussion.

The ITAAC may prove the pump couldn't flow through a pipe, but you go up the front -- and Gary is going to talk about what they do on design; but once a design is confirmed, then you verify the pipes are right and everything else and then eventually you do the ITAAC. There is a lot of confirmatory activity in the middle. Now, the enforcement is related to that.

COMMISSIONER JACZKO: I guess that is the question. I mean, all of those things are in the ITAAC. I mean, ITAAC stands for inspection, tests --

MR. REYES: The inspection of the construction activities in the Q and A program, we can stop the work right there. And we have done it, and we will do it again if it's out of norm.

MR. TRAVERS: I would expect them to be very complementary, actually. Because I think what we are going to be looking at in the context of readiness to operate in

constructing a facility as we go along is going to be complementary to the ITAAC, and we really do have the classic enforcement.

Even though, we have not developed that yet in full and we are working to do that, Commissioner, I would expect that we're going to have a lot of latitude in enforcing non-ITAAC areas of concern, particularly if they result in significant questions, including the potential, as Luis mentioned, for stop work.

COMMISSIONER JACZKO: You know, I guess -- and that may be the -- And perhaps, this is maybe where Karen can chime in a little bit, because under Part 52 the only thing the Commission can make determinations about for a load fuel Order are ITAAC, and I guess it's not clear to me --

MS. CYR: I mean, those aspects of the plant that you have enough information about, you will make a final decision about, for instance, the QA program. And that will be established -- whatever that QA program, that will be finally establish when you issue that COL. They have to follow that COL. So you will be inspecting as you go along, are they, in fact, complying.

The ITAAC will go to those findings the Commission has to make that I can't make at the -- you know I can't make final at the COL, because there is a piece of it that I have to look at and know something about later on, but some parts of the license and the various aspects, I will know. I will have all the information. I will have made my final determinations and it will be in the license as part of the license, and the big example of that is the QA program. That will be in place. They will be obligated to follow that, and we will be inspecting that as it goes along.

MR. REYES: A good example is the inspector is there, the concrete truck backs into, and they are going to pour the concrete on the basement of the containment. And they do the sample right there. And the inspector is there and says, that sample does not meet the specs for concrete in your Q & A program. If you put it over there, you have a problem with us.

Guess what happens? Concrete doesn't get put there. It gets thrown away and another truck gets called in. That is enforcement. It is on the spot. I mean, we have done it; we are going to do it again.

COMMISSIONER JACZKO: I guess I would just -- the question becomes what if -- the ITAAC in that case, as I understand, is performance based. That's what staff told the Commission regarding to --

Let's say they come in and the concrete is not mixed correctly. If it is poured and meets the standard of the ITAAC, then it is satisfactory. And the standards for the ITAAC are performance based in that case. That's what I am asking is, what do we do in a situation where we have a contradiction between the enforcement issue, say, raised by the QA program and the ITAAC completion? There is a conflict there.

In that situation you raised, there is a chance that they could go ahead and pour it over the objection of the inspector and if it meets the ITAAC performance criteria, then it's fine and we move on. Is that not correct?

MR. HOLAHAN: I think, in addition to that they are required as a licensee with a QA program, they are required to meet that QA program. And when they find something that does not meet it, they are required to take corrective action. Now, whether that means taking the concrete out or supplementing it in such way, those requirements still exist. The only thing that's different is it's -- in the old program it would have been associated with whether you get a license or not.

In this case, they are a licensee. Okay. So it's just like any operating reactor who does something contrary to the quality assurance program. They are potentially subject to a violation. They have to take corrective action, and if it is sufficiently extreme, the Commission on the basis of safety can require them by Order not to proceed.

MR. REYES: We have done it in the past.

MR. HOLAHAN: It is not a licensing activity. It is an operating reactor enforcement, a licensee enforcement type activity.



COMMISSIONER JACZKO: I have some other questions, but I will wait until we have another round.

CHAIRMAN KLEIN: One of the -- I guess I have a question for Luis and probably for the new head of the new reactors.

While Bernie this morning indicated that it's rare to have a perfect application, we certainly should strive for it. And I guess I'm a little nervous about the quality of the ESBWR application, particularly in light of an ABWR.

Can you enlighten me as to the differences in those? In other words, having gone through the ABWR, I'm a little disappointed in the quality of the ESBWR.

MR. REYES: Here is my ABWR expert.

MR. BORCHARDT: I'm probably going to turn to Gary to give you specifics about the ESBWR, because I am not totally up to date, and Gary is going to look for the project manager.

MR. HOLAHAN: You know, the ABWR was not a perfect application either. We took a lot of time doing the ABWR review. We were quite satisfied when it was done. We were, in fact, hoping that the ESBWR review in a more mature state would have been at a higher quality. As I mentioned earlier, the first application we found to be insufficient to docket and to put in the system.

GE did a number of corrective actions. But they didn't submit a hundred percent complete application even in October of '05. And I would have to say that we have been somewhat disappointed with the timeliness of their responses and in some cases the quality of them in turning issues back to them.

You know, we have made it clear that the reason you have that letter there and probably two earlier letters is that we want to make it very clear as early as possible that we will hold them responsible for the quality and the timeliness of their activities, as I expect them, Commission and others, to hold us responsible for the timeliness and quality of what we do.

Ultimately, GE is responsible for the quality of what comes in. And they are going to be responsible for the completeness or incompleteness or the effects ultimately on the schedule. I think it is clearly to their advantage to do it well and do it as timely as possible. We make staff available to meet, to go to GE, do whatever it takes to get the reviews done.

Frankly, I think, you know, just like we talk about hiring more lawyers and hiring more staff, they have the same situations. And I think it shows that there is somewhat of a struggle in having all of the resources available to put on issues as quickly as they would like to and as we would like them to.

CHAIRMAN KLEIN: I guess my concern is that it takes the staff a lot more time to process a poor application than it does a good one.

MR. HOLAHAN: It does.

CHAIRMAN KLEIN: And it hurts everyone, in other words, it is distracting. It is like what part of quality don't they understand. And so, I guess, it is just a little troubling that the quality is not a little higher.

COMMISSIONER MERRIFIELD: Mr. Chairman, I think some of it is -- not taking too much of your time -- I think some of it is an issue of expectations. When the staff went through the ABWR proceeding earlier, we had the luxury of time, as did the applicant. And so, we could go through that proceeding in a more methodical way, and I think our staff, again, to their credit, I think, sort of bent over backwards to sort of help the applicant figure out what we needed. We don't have that issue of time or luxury today. And it's a different set of rules. And perhaps, there needs to be a little bit of adjustment on part of the applicant, i.e., GE about our position today versus where we were with ABWR.

MR. REYES: The ABWR took seven years to go through that process.

MR. BORCHARDT: You know, I was in that group a long time ago when we did that and the way we manage those projects was we had a resource cap on it. We let the schedule float and we had a limit on the number of resources, because we were also doing

license renewal. We were doing a lot of other new projects in NRR at the time. That's different.

The other point I would like to make is that a year from now if we have an applicant that has this kind of performance, with 80,000 lines of schedule, it is going to have a ripple effect. We won't be able to suck it up and just deal with it.

CHAIRMAN KLEIN: That's my point.

MR. HOLAHAN: One of the things that we have asked our staff and a management consultant to look at is to what extent do the many, many questions that we put on GE's plate, are they there because our guidance document, our Standard Review Plan, DG-1145, were not available when GE made their application. And to what extent have all the infrastructure activities we have put in place should have dealt with this situation.

And, hopefully, the next design certification whenever, whoever, hopefully, could be --

COMMISSIONER MCGAFFIGAN: The EPR.

MR. HOLAHAN: Yes, the EPR probably is next, would be facilitated by the fact that these things would be in a much more complete state than when GE was doing their development.

CHAIRMAN KLEIN: Thank you. Commissioner McGaffigan.

COMMISSIONER MCGAFFIGAN: Mr. Chairman, I am glad you brought up the ESPWR. I think Gary a little sugar coated it the first time around. Some of their things have been overdue by far more than a month, I think he said in his opening statement. I think some of the PRA submittals, maybe our fault, maybe our guidance is not perfect, but some of the -- I had a document in front of me when GE came in, and it looked like they had missed three deadlines for a particular PRA subchapter or something, and I talked to them about that. I talked to them about the fact that could not continue.

I would hope that Entergy and Dominion would put some pressure on GE to

get things scaled up quicker, because when those consequences occur, they are going to occur to those folks.

Let me run through a couple things, on digital I&C Commissioner Merrifield already asked, but is the staff comfortable with a totally digital I&C system or like the Fins, are you guys thinking about analogue back ups to digital I&C, and where are we?

MR. BORCHARDT: In fact, this Thursday, there is a meeting between ourselves and the industry to talk about a number of the issues. We are not comfortable yet. There is still a lot of technical discussions to take place.

COMMISSIONER MCGAFFIGAN: That sounds like a really fundamental thing. I mean, it is a good chance that this meeting -- I think at the November 8th or 9th meeting, whatever it is, you may want to update us as to whether progress has been made or not. But you know, there is a fork in the road and we can't take both forks, I don't think. So you guys have to figure out which fork you are taking pretty soon.

One of the complaints we got this morning was in the haste to get along with things, you all were reluctant to document things. You know, yes, yes, we agree with that; that's the right interpretation of the words, but we are not going to bother to change the words that are subject to multiple interpretation. And they are afraid that when you all are gone, and we all are gone, and they are all gone some -- that there will be a new interpretation of those rules. Sort of like hot shorts.

And you know, is that a fair complaint for you guys that -- that you are not listening to their desire for documentation of what words really mean?

MR. BORCHARDT: I will let Gary answer it in a second, but I am confused by it, to be honest with you, because it seems like the majority of our work right now is going through and documenting staff positions, it's up dating 1145, it's updating the Standard Review Plans.

COMMISSIONER MCGAFFIGAN: I don't know what they have in mind. Maybe you guys should talk to them.

COMMISSIONER MCGAFFIGAN: Communication, communication, communication is what the Chairman says.

Resources. I am going to have another round two, I think, but resources. If Secretary Bodman and Deputy Secretary Sell seemed to be very concerned based on their reading of the Congressional Trade Press, that the assumption is that Congress is going to come back into session and pass a continuing resolution until January, March or something, leaving it to the new Congress to pass an Omnibus Appropriation Bill for the departments other than Defense and Homeland Security that actually have an appropriation.

If you're sitting here in March waiting for an appropriations bill, your carry over is long gone, what is the effect on you of having \$100 million -- or \$50 million less the first half of the year -- you know, having to operate at \$100 million less than the level that the House has approved and the Senate Appropriations Committee has approved?

MR. REYES: We had a meeting with the CFO, we went through the resources in terms of budget we have, and we are in good shape until the end of the year. If it's after January, we have a commitment to meet again to talk about priorities, but clearly stated we are not going to slow down recruitment, and we are not going to slow down some of the key projects. Something else is going to have to give.

And we're making that list as we speak, because we don't know if we are going to have the full budget come January 1st; but until January 1st, we are comfortable we have enough funds.

COMMISSIONER MCGAFFIGAN: Until January 1st, you have enough funds; but I can assure you if they punt to the new Congress based on my experience, 14 years in Congress, the chance of them having an Omnibus Appropriations Bill before about April is very, very small.

MR. REYES: We are preparing a list of what will have to be deferred.

COMMISSIONER MCGAFFIGAN: So I think you will face a crisis, and if you do face a crisis, I would urge you to call it to the Chairman's attention so that he can raise his

voice, as Secretary Bodman and Deputy Secretary Sell are doing in DOE space so that we can paint that picture and maybe get ourselves into a better place.

MR. REYES: Yes. Just to give you an example of things we talk about, and making this list, and we have not shared it with the Commission yet, but Energy Policy Act gave us authority to give grants. Okay. That is a big chunk of money.

COMMISSIONER MCGAFFIGAN: You are not going to do that?

MR. REYES: Well, we are going to propose -- if we get into a bind, we are going to propose to delay that. So there are things that we can delay -- projects that we can delay to keep the key functions or what we think are the high priorities going.

COMMISSIONER JACZKO: Under a CR, would we even have the authority to give that? I mean, we generally don't get authority. That would be a new program under '07, we wouldn't even have the authority -- the budget authority for that money --

MR. REYES: Correct.

COMMISSIONER MERRIFIELD: -- under a CR. So how would we use that to make up a shortfall?

MR. REYES: No, we would say -- we wouldn't do that. The reason we got the big budget was we were doing to do all these things. And we are saying the delta between the budget we have and the budget we propose, we are going to shrink by not doing certain things.

COMMISSIONER MCGAFFIGAN: Let me -- this round I am just going to stop. The notion that contractors are the shock absorber, I don't think is a good notion, because contractors are helping us at the moment doing all these Reg Guides. We have not talked about security, but contractors are doing security Reg Guides. Contractors are carrying out a bunch of essential functions. And just because they are contractors, if we go and cut all of them, we are going to end up having impacts back on us too.

So I think you need to figure out what the real impact would be on getting ready for COLs if we take a CR that continues into next April, because I suspect you cannot

protect new reactors and say we're consistent with our highest priority, which is the current reactor fleet.

CHAIRMAN KLEIN: In some of our senior staff meetings we are looking at contingencies, you know, what happens if we don't have a budget in January.

MR. REYES: We are working that list. At the first meeting -- you are right; you're exactly right. We are working that list, and we will have one, what to defer.

CHAIRMAN KLEIN: Commissioner Merrifield.

COMMISSIONER MERRIFIELD: I guess the first one goes to Judge Hawkens. I take it from -- I don't want to put words in your mouth -- but if the Commission were to decide, either as a result of additional Congressional authority or otherwise, that we're going to take away the mandatory review function from ASLBP and put it somewhere else, I didn't take it from your presentation that you would have any objection to that. Is that a fair assessment?

JUDGE HAWKENS: My Navy background, I would give a cheery salute.

COMMISSIONER MERRIFIELD: The Chairman appreciates that one. I don't know what a cheery salute is.

CHAIRMAN KLEIN: It is better than some other salutes.

COMMISSIONER MERRIFIELD: Yes, I know some of the other ones. I get those from Luis.

MR. REYES: I have never been in the military.

COMMISSIONER MERRIFIELD: I am going to leave that one right there. That's helpful to know.

Karen, on the readiness strategy, your slide four, you were going to have a creation of some G-15 team leader positions to create design centered teams. Can you talk a little bit about what is the breadth of these teams? How are you going to align them in light of the activities of NRR and ONR staff?

MS. CYR: Our hope is having teams in the sense of five to six people. Our

estimate is that it takes us about five FTEs to do one plant all the way through, but it is not all at one time. But as we staff up for this, I think next year we have 20 FTE direct and I think could make up a little bit more in terms of how that is. That would sort of line up with in a sense the four designs that we see in-house.

And so that's our goal, again, is to staff up and eventually that is how we will have each team will be with respect to a particular design, so that they can be doing the review from the beginning in terms of doing the SER and then following through with respect to any hearing.

Again, we're just posted those positions. We are just starting to recruit for those positions; we will be putting them in place over the next year. I don't think -- we're not going to be there immediately. And so I think in the sense you may end up -- ultimately, you will start out with people in one team and then they may sort of move out as the load grows in terms of having more applications coming in, you move into a COL stage and so on with respect to those and take on more responsibilities with respect to a new design as it really begins to staff up.

COMMISSIONER MERRIFIELD: Not to delay. Have you set milestones for the hiring to meet those expectations?

MS. CYR: Well, our FTE for this year is not -- is in a sense -- I think it is five direct, seven indirect. So in a sense, we are going to be trying to hire, assuming we can, to our FY08, so that we will be hiring sort of in late spring and into the summer to be there in a position to have most of those people on board at the beginning of the next fiscal year. That's our goal.

MR. REYES: And the money we put aside for salaries and benefits assume everybody is going to hire through FY08 ahead of time. Because practically, you are going to go to FY07 and -- September 30th this many people and October 1st this many people. So the arrangement we have with the budget is everybody would be hiring in this fiscal year through the FY08 budget. So the moneys are there.



COMMISSIONER JACZKO: A couple of quick questions, Gary. I pulled the book while you were talking about 20.1406. I don't think you are in trouble, but I just wanted to read a little bit about what that says, and as you indicated it is a fairly broad performance-based requirement and it applies to applications, which I assume we would interpret there to be a COL application in the case of the Part 52 plants?

MR. HOLAHAN: Yes

COMMISSIONER JACZKO: I'm wondering to what extent -- and you touched on this a little bit -- to what extent do you think we can deal with some of the specifics that the staff is looking at accomplishing with Reg Guides rather having to do a rulemaking to accomplish that? It seems like the schedule of a March rulemaking is not likely to be done in time to affect applicants in late 2007 anyway. So how do you see that in Reg guide space?

MR. HOLAHAN: I think it is a workable situation. Especially because you heard this morning about the commitment to a design centered approach in which a number of utilities all say they are all going to do the same thing, and the vendor designing the plant says they are going to do the same thing. And in fact, we have the opportunity to review what they propose to do with respect to 20.1406.

And I have every expectation that they would address things like having wells or monitoring or dealing with buried pipes and those sort of situations. And whether it says so in the rule or not, we can look for those kinds of features that would -- I think the word in the regulation is minimize releases.

And I think once it was settled as to what those were, they become part of the license. The fact that they are not in the regulation, they would become requirements, and the fact that everyone has more or less agreed on how to do them alike, I think it makes it a workable situation.

MR. REYES: If you look at the typical sources that have created the problem, they also become an operational headache, a rad waste pipe that is buried. So there are some things that the utilities are going to change simply because it makes no sense to do

that 60 years. I mean, they learned some real valuable lessons. If they had to do it all over again, that would be their approach. So I agree with Gary.

COMMISSIONER JACZKO: Have we looked at -- have we updated yet or put out a draft for the Standard Review Plan section that would cover that?

MR. HOLAHAN: No, we have not. And we're considering both the Standard Review Plan and the Regulatory Guide; but we are having discussions with the industry about the possibility that they would write some guidance for all the applicants, which we might endorse. In which case, we probably would issue a Regulatory Guide, but it would be to endorse whatever we came to agreement on. It would be very short. It would say we endorse, whatever that document is.

COMMISSIONER JACZKO: I certainly think -- like I said, I think given the timing of this, it is probably going to be difficult to do this with a rulemaking. And I certainly think if we do go through the process of endorsing the industry guide, I think the staff should do lots of meetings and get lots of buy in on that since it is such a crucial issue for a lot of different stakeholders.

MR. HOLAHAN: I think the only difference is whether it is a requirement of the regulation or a requirement of the license. In this case, I think we can work with that.

MR. KANE: I think our lessons learned report we just issued identifies many of the areas that we are talking about. So I think we have a good starting point to develop regulatory guidance by looking at the sources of the leakage that we have seen so far.

Not that there are not other pathways with these new designs, but at least that will be a starting point. We are looking for the industry to go forward and propose something that could accelerate our schedules for getting the guidance out.

COMMISSIONER JACZKO: If I could ask one more question. One of the issues that I think we're dealing with right now from the AP1000 is really -- I guess I would call it the completeness, perhaps, of what we certified as the design. As we go forward with ESBWR with EPR is the staff expecting that these are going to be more complete designs

than -- at least to the extent practical that some of the issues that are still outstanding from AP1000, those kinds of issues will not be open items under those designs.

MR. REYES: The answer is yes, because when the AP1000 was put through the design certification process, there were no customers. So take the seismic, for example, it was done for a particular subset of locations in the U.S., not knowing who the customer was going to be.

Instrumentation and control. You didn't want to firm it up, because if you ordered it and it didn't come for a decade, technology would have changed. So I think the scenario for the other certifications is different. They have customers, they know who they are; it is a different situation.

COMMISSIONER JACZKO: Just to clarify. When the Commission -- I certainly approved it, so I am not pointing fingers at any one other than myself, but we certainly certified AP1000 when we knew there were customers for the AP1000.

MR. REYES: The bulk of the work -- the bulk of the work of the design was done before there were some customers.

MR. HOLAHAN: Two particular areas and they were discussed this morning; that is the instrumentation and control, and control room design were two things that were not taken on by the vendors in the original design certifications. We expect that situation to be changing here with our customers. And it makes no sense to not have a control room and an I&C design. You heard the desire this morning to have this done as quickly as possible.

MR. REYES: You heard this morning, they want to order the simulator. They want this thing done.

MR. HOLAHAN: Yes.

So where there is an opportunity, I think we would expect to see those designs in the design certification. It is even possible to put it in the design certification in a rulemaking amendment for the AP1000. It will certainly be settled by the first -- call it a

reference design among the designs in the group.

COMMISSIONER JACZKO: Thank you.

CHAIRMAN KLEIN: Gary, if I understood you, you said that we might be able to start looking at certain packets of the workload in '08 if they would start giving them early?

MR. HOLAHAN: Yes.

CHAIRMAN KLEIN: What is the difference in the amount of material in a COL by itself versus one where there is an ESP and then a COL. Is the COL with an early site permit much smaller?

MR. HOLAHAN: Yes. The difference between having an early site permit and not having an early site permit, you still have to do the citing activities. You still have to do an environmental report and we still have to do an environmental impact statement. But one thing it does, it shifts the time that that occurs.

And my recollections in our budget model, I think it costs about 15 FTE instead of 20 or 23. So it's a little more efficient to do it; but the time when the COL is going on, you basically eliminate the large majority of the environmental activities. It does not go to zero, but it goes down to a very manageable number.

CHAIRMAN KLEIN: The question was from a workload standpoint, whether or not it would be better to have more ESPs in a COL rather than a COL alone?

MR. HOLAHAN: It is really a timing issue. I think the word "early" is in an early site permit for a very good reason. And that is if it is early, meaning there is some time between the early site permit and the COL, it is very beneficial.

There are some cases where the early site permit is not very early. It is virtually on top of the COL, and there is distinctly less advantage in that case. And you have seen it in a number of cases where, I believe, all the EPRs are not doing early site permits, because it is simply too late to get started.

And once you are virtually at the COL stage, there is probably no reason -- and in fact, it is probably harmful to do an early site permit and a combined license in parallel.

You simply get yourself into two hearings at the same time when you can do it in one. So it is the early aspect of it that makes the early site permits valuable.

CHAIRMAN KLEIN: So do you expect to give guidance to the utilities if we have a high workload so that you can start looking at some of these segments in a COL to average out your workload so you don't get hit all at once?

MR. HOLAHAN: We have been having a number of discussions. Largely, the discussion about moving work. It is not about eliminating early site permits. It is largely about taking technical topics, like I&C, and control room reviews, and seismic analysis and those things and moving them early. It is a 2008 submittal, try to get some of those reviews done in 2007. If it is 2009 submittal, try to push them earlier as well.

CHAIRMAN KLEIN: Okay. Thanks. Commissioner McGaffigan.

COMMISSIONER MCGAFFIGAN: Just to follow-up on that, EPR claims that it is going to submit environmental reports six months ahead of applications. The hope that you will be doing scoping meetings and draft environmental impact statements, even though you don't have the whole application, is that your intent?

MR. HOLAHAN: Yes. Any topics that we can -- especially -- one of the things we like to look at is whether these issues are potentially critical path items. And any critical path work we can do early.

MR. REYES: We want a flap in the curve. We want a flap in the workload.

COMMISSIONER MCGAFFIGAN: Vogtle submitted its application, what, in August, and you talked about a 21-month review. So it strikes me that their application, the staff work on their ESP is likely to be largely finished by the time they are applying for the COL. So they get benefit, even though it is not finished by the time they apply.

MR. HOLAHAN: Yes. I don't think it can be entirely separated.

COMMISSIONER MCGAFFIGAN: Okay. I just want to make sure, because I'm trying to encourage people who are thinking longer term to come in for ESPs and they look at how long it took to us to do some of the existing ESPs, and I think the Vogtle ESP

process is very important to prove that we can do things faster this time than we did with the first three.

So I see a lot of talk about, you know, the stuff that you guys can control. We have not talked much about security today, except about rulemakings. The Reg Guide for the 73.55 rule that is yet to be published, even though the Commission approved it back in June, and apparently will be published this month; we had lots of, I guess, discussion with the Justice Department.

When are those Reg Guides going to be available for somebody who is having to do security plans for the new plants. I know I was working on them. Usually, we like to have the Reg Guides available like you are going to do Part 52 at the time of the final rule, are they going to be available?

MR. HOLAHAN: I don't know for a fact.

COMMISSIONER MCGAFFIGAN: Spring? Draft Reg Guides in the Spring.

SPEAKER: Spring of '07.

COMMISSIONER MCGAFFIGAN: I don't think you guys can lose track of the fact of where the contentions are likely to be that Mr. Hawken happily deals with. In environment, security and EP space based on historical -- it is unlikely in some of the stuff you are planning you are going to get huge numbers of contentions.

The 80,000 lines of schedule that you are talking about, Bill, how many of those involve our work, and how many of those involve other actor's work, such as DHS?

MR. BORCHARDT: I don't have the exact break down, but it is a relatively small number for DHS for the non-NRC. This is mostly review branches, interaction with ACRS, OGC is fully integrated into the schedule. So it is --

COMMISSIONER MCGAFFIGAN: If we have another hurricane one of these summers, does DHS --

MR. BORCHARDT: It is an issue of great concern for us, even if it is not a lot of line items. It is a vulnerability.

MR. REYES: It is the first time perform evolution, they have never done it before. Okay. So right away. And two, it is an external organization that is not under our control in terms of priorities, and you mention external environment priorities that happen. So we will have to work with them. We have had quite a few meetings with them. They are adjusting their budget to support this. But, clearly, as a first time -- first of a kind of perform evolution and not directly under our control.

COMMISSIONER MCGAFFIGAN: Final question. I would love to have another round, but the final question is, do you guys understand the State processes that were described this morning by Mr. Ervin -- and I forget the other fellows name from Florida, Mr. Sole -- and how they are going to interact with your processes. And is there anything you can do to improve your understanding of those before we start having these interactions, other than through Mr. Hawken's process, which is, as I said before, a very inefficient way to deal with these issues.

MR. REYES: The first question is no, but the second one is definitely yes.

COMMISSIONER MCGAFFIGAN: If you don't fully understand them, so you are like the Commission. I mean, but it strikes me as pretty darn important.

MR. REYES: This morning, I think, when he said he had a lot of information to present, I think we agree. There was a lot of good information there that we need to digest.

COMMISSIONER MCGAFFIGAN: And then finally, I will just associate myself with Commissioner Jaczko, I don't think 20.1406 is a performance based rule, to the extent practical in design and operation, minimize contamination. I assume the contamination has to be at least moderately risk-significant. So it would eliminate all the tritium crap that we have been worrying about in recent months, where we have negligible, according to the staff's report, consequences to human health. And I believe there is not a single tritium release that would not pass, you know 20.1401, 2, 3 in terms of decommissioning.

But there are important things. We want spent fuel pools that have liners, unlike the Indian Point One. We want collection systems underneath, so that people can

know if there is a leak. We don't want rad waste pipes buried underground. It strikes me there is a limited number of things that we have learned from, you know, 40 plus years of experience with the existing fleet and the decommissioning of some of the plants that we in the industry can agree on quickly.

And it just does not strike me that you need -- given a performance based rule, you put a Reg Guide in place and industry can help you draft it, and that should be the end of it, as opposed to a rulemaking, which I'm not sure -- I mean, if it's going to cover the existing fleet, which I see in some of the background material it might, you're going to spend months before CRGR explaining exactly why it passes the backfit test.

So if it is for future plants, which is what the intent in 1997 was, then, I think you guys can come up with a lot of good practices that we know now are good practices, put them down in a Reg Guide, expect them in the application, and that's it.

COMMISSIONER JACZKO: Can I just follow up on a quick question that Commissioner McGaffigan raised about the scheduling. Does your 80,000 lines include Mr. Hawken and his shop? So if you have people that have to go to hearings --

MR. BORCHARDT: It includes hearings.

MR. REYES: A through Z; it includes everything.

COMMISSIONER JACZKO: Thank you.

COMMISSIONER MERRIFIELD: I have a final comment I want to make.

CHAIRMAN KLEIN: Comments are okay.

COMMISSIONER MERRIFIELD: Well, I think the question I gave to the Judge Hawken earlier is reflective on some reading I had a chance do this summer, going back and looking at what Congress envisioned by the mandatory hearing process. And if you look back -- and I don't remember the date of legislative materials, but it goes back to the -- really back to the 1960's.

And at the time, there had been 3 or 4 reactors that the Atomic Energy Commission had blessed without any opportunity for public comment, off you go. And no



opportunity for the comment to have a real opportunity to say anything about it. And the drafters of the legislation at that point were understandably disappointed in that process, and said, we need to have some opportunity for the public to have an opportunity -- for the issues to be adjudged in an open forum before the agency in a secret proceeding goes ahead and signs off on these applications.

And when you look at the language, there is extraordinary latitude given by the authors as to what that was really intended to do; but basically go have -- seems to me having looked at it, go have a legislative style proceeding, so that we have a public airing and that the public can get some sense that we have taken a look at this.

Now, over the years, you know, through no one in particular's fault, we crafted what was a relatively complicated proceeding for mandatory hearings. And the Commission, through its efforts, since I have been here, at least, has tried to narrow that focus to make it quite a bit more straight forward.

Is the ASLB the right place to put that burden, I think, is to me, is still an open question. I mean, are there other opportunities for us to think about this? In the end, again, looking back at the language, I got the sense from the authors that they wanted a legislative style proceeding.

Well, three of us on this side of the table worked up on Capitol Hill and a legislative style proceeding is members of Congress getting a briefing book and having couple of hours of hearings on a topic. So that is quite a bit different than the mandatory proceedings we had years and years ago. I can assure you that the amount of preparation a lot of members put into two hours of hearings is not necessarily what one might expect.

So, anyway, suffice it to say, just to put it out as sort of a comment, I think this is something the Commission is going to have to take another look at. Have we engendered this in the right way to meet our legal obligation, yet in the same way, do it in a manner that makes sense. And I know the Board has been tearing its hair out to try to meet that as well, and perhaps you need some additional help from the Commission to help us resolve that.

Thank you, Mr. Chairman.

CHAIRMAN KLEIN: Commissioner Jaczko.

COMMISSIONER JACZKO: I would just say that I think it's been a good day of hearings, and we have gotten a lot of good information from this. And I think that each time we do one of these, we learn that there is more areas of work.

I think we have probably seen that there is a lot that needs to go into whatever we are going to do for an ROP style construction, inspection or oversight process. I think that's some work that's going to need to get done in a relatively short time and play an important role.

Certainly on the issues of the mandatory hearing, I think, it's helpful to hear that this may not be a process that's best suited to the skills and talents of our licensing board, and that there may be other venues to deal with that. Certainly, something that I'm open to discussing.

I personally believe that I think it is something that the Commission itself should handle. And I think we balance both the interest of the adjudicatory type process as well as just the oversight and management process, which this, in many ways, seems more akin to since there are no contested issues in that case. So I think it is an area certainly that I'm open to discussing further.

COMMISSIONER MERRIFIELD: I appreciate my fellow Commissioner's comment on that; that was, in part, what I was eluding to. And clearly, I think we have demonstrated through the proceedings today the Commission is quite capable of going through some rather difficult issues and giving them the thorough vetting in a public forum.

COMMISSIONER MCGAFFIGAN: Mr. Chairman, I have a track record on this; I will just repeat it. I believe -- I think it was 1957 when this mandatory hearing was enacted. It was a closed AEC. It had a large promotional role, and had done some things in the dark.

Since then we have passed NEPA, we have pass the Energy Reorganization Act of 1974. We have passed the Freedom of Information Act. We have passed

Government in the Sunshine Act.

I don't think the people -- the members of Congress and the Joint Committee in 1957 could possibly have imagined the processes that we have today to involve the public. And if Congress will not repeal the mandatory hearing proposal, I regard as an obsolete fix to a problem that just was never bothered to be repealed as better fixes were put in place. We do that in procurement law all the time, we do that in other parts of law all the time. But if they won't repeal it, then we have got to look at better ways to do it.

But it is an add on at the end of a process, which today has full public involvement in both the development of the SER and the development of the EIS where ACRS already serves as a check on the SER, and where the value at the end of doing a quick legislative style hearing when we -- you know, I am not sure what the value of it would be if we can get away with it.

I hope the law allows us to get away with it, because that will be the fix if we can't get the law repealed, but it's an entirely different world 50 years after the Joint Committee was struggling with an AEC that they regarded as out of control. We are a public body. We are open. And all of our Guides and -- except in security area, are totally available to the public.

So I personally would love to see the mandatory hearing requirement repealed as adding no value in the current era.

CHAIRMAN KLEIN: I would like to thank all of our panelists for your input today. I think the hearing this morning with industry and the States and the Union of Concerned Scientists, and now this demonstrates that we have some exciting times ahead of us. And I appreciate all the work that the staff has done with the new reactors, keeping in mind that those existing ones are running safely is very important. Meeting is adjourned. Thank you.

(Whereupon, the proceedings were adjourned.)