UNITED STATES NUCLEAR REGULATORY COMMISSION

PERIODIC BRIEFING ON NEW REACTOR ISSUES – PART 1

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Wednesday

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

NUCLEAR REGULATORY COMMISSION

DALE E. KLEIN, CHAIRMAN

GREGORY B. JACZKO, COMMISSIONER

PETER B. LYONS, COMMISSIONER

PANEL ONE: STAKEHOLDERS

KEVIN RICHARDS, Group Vice President, South Texas Project Units 3 and 4, STP Nuclear Operating Company

ED CUMMINS, Vice President of Regulatory Affairs, and Standardization Westinghouse

SHERRY GRIER, Procurement Quality Manager, Duke Energy and Chairman of NUPIC

DIANE CURRAN, Attorney, Harmon, Curran, Spielberg, Eisenberg

WILSON PARRAN, President, Calvert County, Maryland Board of County Commissioners

LOUIS ZELLER, Blue Ridge Environmental Defense League

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

CHAIRMAN KLEIN: We will now begin our open meeting and I'd like to welcome our representatives this morning. We realize that Mr. Zeller is not here yet, but we believe he's on the way. For those of you that are not familiar with Washington traffic, it's always bad. On days that it rains, it's even more bad. So we assume that he will make it.

We are really looking forward to the comments today from the various stakeholders. This is a hearing that will primarily talk about the inspection program for the new reactors. There will be two parts. We'll hear from industry and public stakeholders this morning and then this afternoon we'll hear from our staff.

The Commission will be looking at making a finding prior to the operation to ensure that the acceptance criteria have been met and so we look forward to your comments in that regard. Any comments before we start?

COMMISSIONER JACZKO: If I could just say briefly, I think this is a very unique hearing or Commission meeting because this is the first time now where this is not purely a theoretical exercise. We have one COL application that is submitted to this agency.

Certainly, as I was reflecting on this as I said we are now really getting

down to actually dealing with these issues in actuality. So I think that's something as I go through this, I'll be very interested even at this point on any experience that anyone has gained so far about how the process is working and the activities that we have in front of us.

CHAIRMAN KLEIN: Thank you.

COMMISSIONER LYONS: I would just second what both of you just said. I am looking forward to this hearing.

CHAIRMAN KLEIN: And we'll begin with Mr. Richards.

MR. RICHARDS: Thank you, Chairman Klein. Chairman Klein, Commissioner Jaczko, Commissioner Lyons, we are honored to be here. We want to thank you for the opportunity to speak with you today.

My name is Kevin Richards and I'm the Group Vice President for STP Nuclear Operating Company. On the panel here from the industry today is Ed Cummins, Vice President, Regulatory Affairs and Standardization for Westinghouse and Sherry Grier. Sherry is the Procurement Quality Manager for Duke and the Chairman of the industry's Nuclear Procurement Issues Committee also known as NUPIC.

Today we want to discuss several major areas of industry focus. I will discuss project quality, corrective action programs, construction assessment recommendations, skilled workforce plans and proposal for access requirements during construction.

Ed will discuss design, procurement and construction and talk a little bit about lessons learned and the modularization process. Sherry will talk of what's going on in the Procurement Quality area including NUPIC activities.

Before getting into the presentation, I would like to make some general remarks. Today's discussion is focused on ensuring high-quality from a quality construction project from the beginning to the end. We remain fully committed to developing high-quality applications. In this regard, we recognize there have been problems with recent applications and while we've been working with the NRC over the past four years on implementing guidance in Part 52 these documents have just been recently issued over the past few months.

We, the industry, and the NRC are on a steep learning curve and this type of dialogue and the dialogue with the staff has been excellent and needs to continue. The industry commits to working with the NRC to learn from these early applications and we will use our design centered approach and the NRC design centered review approach to ensure these lessons learned are incorporated in follow-on applications. If you go on to slide three.

We talk a little bit about project quality and corrective action. The last phase of the nuclear construction industry has a well-documented history of issues. Problematic areas included inadequate quality programs, loss of configuration management and overall weak project management. These failures combine with the two step licensing process and the evolving regulation led to

budget overruns, extended schedules and cancelled projects.

Today, it is evident in the industry that we have learned from the past. There are several examples including the restart of Browns Ferry Unit 1, the Fort Calhoun major upgrade project, several steam generator replacement projects and now into the reactor head replacement projects.

The U.S. nuclear industry has set the standard and set world records in the quality and the schedule and the cost of several of these projects around the world. Most of the projects were generated with high-quality, on schedule, and within budget.

The industry's overriding principle of nuclear safety and quality coupled with advanced project management skills have been major factors for this success. This is a much different period than it was 25 years ago. I think if you go assess those projects you'll find a couple of other foundations to the success of those projects and that's the strong corrective action programs that we have in the nuclear industry and the use of lessons learned. Excellent CAP and lessons learned programs are now the norm for the industry and will be a key to success in the new build program.

The nuclear industry is currently evaluating recent industry lessons learned from around the world. INPO has taken the lead and will establish the forums for industry to collaborate and learn from our peers. The bottom line is that we continue to make lessons learned an industry focus. We've proven over the years

we can do that and Ed's going to speak a little bit more about that when it comes to his turn.

During the next wave of nuclear plant construction strong corrective action programs will be used to identify, track and resolve issues. The industry would like the opportunity to fix our own problems using the corrective action program. Its effective for operations and it will be effective for construction. What we feel regulatory action should only be initiated when there is a programmatic breakdown, a willful act of noncompliance, willfulness reporting or a major defect with an important component that has been accepted for service.

The U.S. commercial nuclear industry is among the safest, if not the safest, industries in the world. Plant safety and operational performance are at all-time highs and continue to improve. The industry continues to raise the standards to attain excellence and we hold each other accountable to that. The regulatory community and the industry continue to learn and improve from our experiences.

Modern construction practices are different from the '70s and the '80s. The design will essentially be complete before we start safety related construction, procurement will begin before the COL is issued, and construction is planned to a level of detail that is far beyond what was accomplished in the past. For example, the latest combined operating license application that we built had a schedule of around 7,000 logic-tied resource-loaded schedule to make that accomplishment.

What we see today in the major retrofits are the central themes if you go

take a look at them. High standards of excellence are established early in the project. Strong and rigorous quality programs are developed, communicated, trained on and implemented. The project culture embraces a plan before work mentality. Leadership fosters strong communication skills. Open communication is cultivated to facilitate early identification of problems. Performance indicators are used to measure success. Decision-making is efficient and requires collaboration with keys stakeholders.

We see team work at the forefront of these successful projects. State of the art project management tools like 3D CAD design, integrated scheduling and procurement programs are used and modularization is used to parallel activities that otherwise would be done in series. In general, the regulatory construction inspection process has been dormant or untested.

We commend the NRC staff for starting these interactions with the public and the industry three years ago. We believe it's critical for the NRC to continue these public interactions so that the industry, public and the NRC attain a common understanding of standards and implementation practices.

There needs to be a clear division of responsibility, however, in the area of construction inspection. There will be deficiencies. We understand that. And the industry plans to tackle these deficiencies with our corrective action program.

We recommend that the NRC develop an assessment program with the following elements: that the process is simple, allowed to evolve as the industry

matures; the assessment process is based on identification of programmatic breakdown verses individual findings; the program relies on a rigorous, robust corrective action program to identify and resolve issues; the process includes follow-up inspections to ensure we're doing the corrective actions as we said; and the program is predictable and scrutible.

We continue to interact with the NRC staff and we expect to have a documented common understanding of the process by the end of next year. This will support safety related construction activities that may start as early as last quarter of 2010. Slide four.

I'll talk a little bit about the skilled work force. Currently, it appears that the demand could outpace the supply of skilled workers associated with this industry. Planning is underway to address the shortage of skilled craft construction professionals as well as people to operate and maintain these units that we're building. Current Gulf Coast labor survey show conservative estimates of around 30,000 and greater skilled craft will be required to expand or build new petrochemical plants, refineries and conventional power plants.

Several of these major contractors are in discussion regarding training and education to develop these trades. Current plans show that the majority of this construction will complete in the latter part of 2010 and 2011. That's about the time the nuclear industry is going to need this type of skilled trade. We feel we can build upon this work force, bring these trades into the nuclear construction

standards through various training programs and put them to work.

In addition, there are several initiatives underway to address the work force for long-term operations and maintenance. For example, at STP we have an integrated training and education plan that involves several universities, several of the community colleges and several high schools. New degrees are being developed and recruiting efforts are now underway on the campuses. We also just built a community college in Bay City that is in the same building as my project office.

We are currently developing a two year degree program there for nuclear power technology and that will facilitate students entering into the accredited training programs for the nuclear plant operations and maintenance. In addition, Texas A&M has taken the lead on several initiatives that will supply engineers and construction professionals and our workforce management plans are detailed and they couple experienced nuclear professionals with the less experienced to account for knowledge transfer. We believe that a comprehensive plan will result in a well trained, educated and stable work force.

Currently, the interest is strong with several young people just enrolling in the campus there and plans are on track. So we're not wringing our hands. We're putting plans together and executing those plans.

The industry continues to work with the NRC regarding access authorization during construction. The overall focus on the access program should

be on these areas: drug and alcohol abusers, identification of potential terrorists, illegal aliens and personnel with outstanding felony warrants. We have proposed a program to screen terrorists and illegal aliens by checking names against government issued photo IDs and collecting Social Security information that will be checked against the Department of Homeland Security database.

Law-enforcement agencies will inform us if any applications have outstanding warrants and we will deal with that. We feel the background checks, other than what we just mentioned, during the construction phase are not necessary. Access screening is just one of the components of the Defense in Depth program for ensuring quality during construction.

The extensive scope and depth of the quality programs, the licensee start-up and testing programs and the safety conscious work environment coupled with the NRC construction inspection process provides additional assurance that the work is being done correctly.

I'd like to now hand it over to Ed Cummins from Westinghouse who will cover design, procurement and construction. Ed.

MR. CUMMINS: Thank you, Kevin. Good morning. I'm going to start with a discussion of lessons learned and lessons learned initially from the design standpoint. Fifteen or 20 years ago when we started developing the advanced light water reactors, power companies had a view that suppliers did not recognize their pain in operating and maintaining their plants. They said when we design the

next generation of plants, which are the ones we are talking about today, we're going to have these issues addressed. So they decided to develop the Utility Requirements Document.

This was a collaborative effort that included all of the vendors, the architect engineers, the power companies, EPRI and others. It resulted in four utility requirements documents: one for evolutionary large plants; one for evolutionary small plants; one for passive plants, BWR and passive plants; EWR.

So this Utility Requirements Document was the lessons that the power companies had learned from over 30 years of operating their plants. I would say they concentrated on issues that were related to operation and maintainability of plants, though they dealt with everything.

There were 13 volumes and the advanced light water reactor program, which is the parent of the APWR and the AP600. There was a very active review of those designs against the Utility Requirements Document. So, the Utility Requirements Document was, from the customer's perspective, a lessons learned document which insisted that the vendors design the new plants in a way that they could be operated and maintained in a more efficient way than the current plants.

The outgrowth of the Utility Requirements Document was the European Utilities Requirement Document. They participated in the U.S. requirements document and decided that they had some different lessons learned, though not dramatically different. And so they developed in Europe the power companies,

again as leaders, the European Utility Requirements. Most of the designs have been matched both against the ALWR utility requirements and the European utility requirements.

In addition, we have lessons learned from INPO. INPO has done two or three times and just recently a lessons learned document about what we are learning from the operating fleet as they operate today.

Third, the design centered working groups are very active participants in the design and licensing process for the plants that they are sponsoring. They are taking an active role to say the design that we are buying is the design that we want. They're working to review the design and design reviews and they're working to input their lessons learned into the design through meetings with the responsible design agents working on the design. That has resulted in some changes to the design as a result of the consensus of the design centered working group that something slightly different would be better.

And finally, the NRC has generic issues that we in the industry follow and work on and those are lessons learned from experience. Next slide, please.

There's been a lot; in fact the Utility Requirements Document says that the next plants to be constructed need to be designed to 100%. The designers always worry about the definition of what this 100% is because it seems to get higher and higher, the 100%. Certainly, the standardization is a major contribution to design maturity.

If you have a standard fleet of plants, then certainly those plants after the first plant will have the advantage not only of the design completion, but the lessons learned from the construction of the initial plants. Even the licensing process, 10 CFR 52, demands a level of design at the beginning of the construction which is more than the level of design required for a construction permit under Part 50, which was what we call PSAR, Preliminary Safety Analysis Review stage. The DCDs are more mature than that so the regulator also has a higher standard in Part 52 for the level of design in order to get a combined license.

So the design maturity is recognized by the industry as one of the key lessons learned in the current experience for building plants in the world. There's a universally accepted goal to get as near to 100% design before we start building the plants as possible. Next slide, please.

There's also construction lessons learned and Kevin talked a little bit about it. I think that our industry tends to focus on lessons learned from the negative things, but there's lessons learned that are positive and negative from construction. There's very excellent programs in Korea and Japan and China where the people are building plants on schedule; one a year or a couple a year with modularization, with quality, with good results. We need to learn from the good lessons as well as the bad lessons. So, all lessons should be learned.

Kevin mentioned experience in the U.S. with things like steam generator

replacement and head replacements. If you look at the lessons learned, there are a few repeating and INPO said they had to look at the lessons learned from the U.S. experience 20 years ago. Amazingly enough, it's the same issues that we find today.

So, the issues are related to the design completion, the maturity of the design, early regulatory approval; that is, if the design is approved by the regulator, it is easier to implement. The supervision of suppliers by the plant deliverer. Attention to details and an effective corrective action programs. These lessons are repeated again and again and we need to pay a lot of attention to those issues. Next slide, please.

One of the new aspects at least in the United States for the new plants is the implementation of construction through modularization. Modularization was adopted at least by Westinghouse and I think most of the others initially as a method in which to make the construction schedule shorter. The project schedules that were required by the Utility Requirements Document had a five-year total project with a three year period from first concrete to core load. As the suppliers looked at this they said, "Well, this is going to be very difficult. The only way we are going to be able to do this is if we do less work in construction then do some of that work in parallel in manufacturing facilities and shops."

Since that time, modularization has been used very successfully by the Japanese; all of the vendors in Japan have extensive modularization experience

and it's used in several other industries as well. So what started as a method to achieve a requirement for schedule turns out to have some other benefits.

One of the benefits is that if you build the plant or parts of the plant in a controlled environment with a stable work force in a supervised facility, then the quality tends to be improved. The demand for construction labor and skilled laborers is reduced at the construction site and is available at the places where people do make modules. It simplifies construction management because there are fewer big pieces to manage and track and control and monitor. It has been very successfully implemented, as I said, in Japan. Next slide, please.

So, modularization has some influence on both the design process and the construction process and even the interface with the regulator. So, just briefly to discuss this. What it tends to do is force the engineering schedule and the procurement schedule forward in time; that is, you have to buy engineered components to ship to the module maker earlier than you had to buy engineered components to ship to the site because the module maker has to assemble them into a module and then ship the module to the site. So, this drives both the design requirements and cash flow forward in time.

It also requires the design to be more mature because the module detail design is the detail design at the site. So, the construction details need to be defined.

The regulatory impact of modularization is an opportunity for earlier

regulatory review of the manufacturing of the modules. The modules for the AP1000, very big modules get installed in the plant in the first few weeks of the construction. That means that years before that, a year or two before -- between a year and two years before that that module is being manufactured.

The module can be manufactured partly at the site and partly - depending on the accessibility by barge for large modules –you rail ship pieces to the site and assemble them at the site or if you have barge access you can manufacture the complete module at the shop.

Next two slides show a couple pictures of modules that we have in the AP1000. The first one is a large structural module which includes the primary shield for the steam generators and the reactor vessel. The second one is an equipment module, equipment and piping module for the start up feed water system. There's two pumps on the bottom and all the piping and hangers and controls on the second level.

So that concludes my remarks. I'll turn it over to Sherry Grier.

MS. GRIER: Thank you. You can go ahead to the second slide. A little background about NUPIC. The organization was formed in 1989 and we currently have 32 U.S. members, which include all licensed operating reactors and some of the decommissioned units. We also have 13 international members: Brazil, Canada, Korea, Mexico, Taiwan, Slovenia, South Africa, Spain and Sweden. And some of those members have participated in the organization for

over ten years. Next slide.

The objectives of our organization are to provide a cooperative program for performing and sharing joint supplier audits. What I mean by joint audit is that we have one member that leads the audit and we have participants from two or three other members. The audits are evaluated by each member and serve as the basis for maintaining suppliers on each member approved suppliers list.

We also provide a forum for sharing procurement and supplier quality issues through our meetings. We have three meetings a year and we also have a website, which I'll discuss in a minute. Next slide.

We have a secure website with information on 800 suppliers; 400 are supported by joint audits. We also post our audits to that site. When an audit is posted, our members can log in and download those audits. We perform approximately 150 joint audits annually. Next slide.

Some of the key benefits of our organization are that we have an industry-wide standardized approach to conduct performance based supplier audits. What I mean by performance based is that we actually observe manufacturing processes through implementation to ensure that the quality program is being implemented.

We have diverse audit teams from different utilities. Before the organization existed, we might have the same supplier auditors looking at a suppliers' program more than one time. This allows us to have a fresh look at the program.

We also require technical specialists participation on each audit. The lead utility is responsible for supplying those tech specialists. We also assign peer reviews of audits and supplier feedback. We obtain supplier feedback on those audits. Next slide.

The interfaces that we currently have with NRC is that we have inspectors observe selected NUPIC audits. We supply our audit schedule a year in advance and they'll evaluate that and let us know which audits they may want to participate on. Vendor Branch personnel attend NUPIC meetings where we discuss what our supplier issues are, procurement quality type issues and they also provide feedback to us on the inspections that they've conducted.

Some of the benefits of the new plants providing supplier oversight is we're going to have standardized designs and hopefully some of this equipment will be common to our plants unlike what we've had in our earlier construction. We have an existing infrastructure for information and resource sharing that can easily be expanded to address the new plant activities. We also have a firm foundation in place for new plant supplier audits. Next slide.

Some of the challenges that we have or that we see: We have complex regulations, standards and guidance for procurement. We're going to be increasing the use of new suppliers and international suppliers. It would be important for us to clearly communicate what those requirements are and ensure that they understand those and are effectively implementing controls for those.

There will also be increased manufacturing pressure for existing suppliers and we'll have to maintain our vigilance on those suppliers to make sure that we're not impacting product quality. Next slide.

Fraudulent materials: This is not a new issue, even though we've seen a lot of recent news stories. The industry addressed this issue in the early '90s through a comprehensive procurement initiative and heightened industry awareness of the potential for fraudulent items and we have industry information exchange prior to our audits to make sure that if there are any issues that we address those during the audits and evaluate any potential areas of problems. Next slide.

Some of the actions that we've taken to identify fraudulent items from that comprehensive procurement initiatives -- We require increased engineering involvement in the procurement process. They have to identify the technical requirements for the items and provide acceptance criteria. Our emphasis is on technical verification of product quality rather than just matching up part numbers that we receive and review of documentation.

We developed a commercial grade dedication process which verifies for commercial products that they meet our requirements for the applications that we need in our plants. We've enhanced our tests and inspections at receipt to identify any potential problems and we changed our audit process to a performance based vendor audit instead of programmatic audits.

We used to go in and verify that their programs met the requirements of the

regulations and maybe a paperwork review. Now we again review their processes and make sure that they implement the processes and the program all the way through the process. Next slide.

Some of the preparations that we're making for new plants -- We've established a standing committee to identify and address new plant needs, identify which suppliers we're using, where we've got commonality, any changes that we need to make to our process or new tools that we need to develop. We currently have about 14 members currently participating in that effort.

We're interacting with NEI on new plant QA task force. It has developed lesson learned reviews and they've identified some more reason DOE experience with fraudulent items. There's a document that discusses that. Next slide.

We will be evaluating the results of the lessons learned documents to see if there's some impact or some changes that we can make to our current process. Our audit checklists will be enhanced to address construction issues that we probably don't have incorporated at this time or any new issues that arise. We'll provide auditor training to address those issues and we're also developing strategies for conducting oversight of common suppliers.

In closing, I'd like to say that in early construction days, we didn't have a lot of these tools that we have now. We didn't share information as well as we do now and I think that it will be a huge benefit as far as trying to address some of the new challenges that we'll have with the new plant construction.

MS. CURRAN: Good morning. My name is Diane Curran. I'm with the law firm of Harmon, Curran, Spielberg and Eisenberg and I have been practicing a while before the NRC and appealing NRC decisions to Federal courts for over 25 years. I am not here as a representative of any party other than myself. I have a lot of experience to share having represented many environmental groups, civic groups, State and local governments, but I'm here representing my own views.

I understand that the focus of this discussion is on program for auditing and inspection of construction, but I'd really like to take this opportunity to share my views about NRC procedures for public participation in licensing of new reactors because I don't get too many opportunities like this.

I'd like to start by just quoting some language from NRC reports about the importance of public participation in NRC decision-making. The NRC has said "the NRC views nuclear regulation as the public's business and that the NRC has a tradition of commitment to the principles of openness, fairness and due process which are embodied in legal, regulatory and procedural requirements that govern policy making."

I think those are important and inspiring words and Mr. Chairman, I believe you recently referred to a nuclear renaissance. This is the kind of lofty language that would go with a renaissance and I'm here to urge you very, very seriously to take public participation equally seriously as all of the technical aspects that go

with licensing nuclear reactors into consideration and to foster that participation.

As an individual, I deeply believe that it is essential to strong nuclear regulation. It's essential to a strong democracy that the public be well-informed of government decisions, especially when they relate to facilities that are inherently dangerous. The public is entitled to know what the agency is doing and I think that history has shown that effective public participation actually improves the quality and the safety and the security of nuclear facilities.

I'd like to cover three topics this morning: One is just the general licensing requirements for new reactors. Two is the NRC's policies with respect to the Freedom of Information Act and the maintenance of documents in the ADAMS system in the Public Document Room. And finally, the NRC's policies with respect to protection of security related information.

I think you are familiar with our submitted comments on the proposed Part 52 rules and on the draft policy statement that was recently put out for comment and I understand it's still under consideration, but I'd like to just go over a few key points since I won't review my concerns about the rule itself in detail or the process of how difficult it makes it for members of the public to participate in NRC hearings when a design may have been approved years earlier and most of us don't read the Federal Register at the breakfast table and may not have been aware that a design for a new nuclear reactor was proposed and vetted for comment and is now the subject where we might wake up 10 years later and find

out it's now the subject of an application in our neighborhood.

I think because that is the situation, it makes it all the more important that the NRC's procedural regulations be as forceful as possible in ensuring that the public can participate effectively in the licensing process and as I stated in comments that I filed on the draft policy statement, we're very concerned that the NRC seems to be allowing piecemeal applications to be filed; that there is a process for getting an exemption from a requirement to file a completed application. Now I know this isn't a final decision yet, but it's been proposed.

One of the things that makes it difficult for members of the public to participate in NRC hearings is when it's unclear - when basically a half baked application is filed and the public is expected to start the hearing process and to vote. It takes substantial resources these days, especially in order to participate in an NRC hearing.

I never start an NRC hearing anymore without having expert witnesses. That's one thing that the NRC has basically accomplished through their more recent reforms to the Part 2 regulations. That's a very expensive process and if the application isn't complete, if it may change significantly as time goes by, members of the public who really want to participate in the decision-making process and understand the information that's being submitted and comment on what's going on, can be seriously handicapped if they have to spend a lot of resources on some issue that changes over time. So, that's a big problem for the

public.

Along those lines, my understanding of the draft policy statement is that if a completed application is filed at one site and incomplete applications are filed at other sites; if there are licensing issues that are common to all of those sites, even though not all the applications are complete, those issues will be noticed and the public -- that will be the public's opportunity to participate on those issues.

So, in other words, supposing a completed application was filed in Kansas. I live in Maryland where there is an incomplete application that has this identical issue. I may have to get involved in the Kansas proceeding, even though I don't even know if a completed application is ever going to be filed in my State. I don't even know whether if you submit a partial application that gives you an incentive or it's certainly much easier to modify it significantly as you go along, it could be an incredible waste of public resources to have to litigate issues that you don't even know are going to be relevant to your particular site later on. I believe that's in the draft policy statement.

Another issue that relates to licensing that also overlaps with the Freedom of Information Act is a tendency that I have seen over, it's been at least 15 years now, that in an apparent effort to reduce the amount of documents that are subject to disclosure under the FOIA, the NRC has an increasing trend of letting licensees keep important documents at the site and auditing them rather than requiring them to be submitted and reviewing them in the agency offices.

That does apparently -- if the NRC isn't receiving these documents, then it's not required to disclose them to the public and the public can't get access to them. There are some very important documents that in new reactor licensing proceedings seem to fall under that provision. One is, its my understanding that in the future, probabilistic risk assessments will not be required to be submitted to the NRC. They'll be audited on site. Frankly, I'm just appalled at that.

Of course, we all know that the NRC is increasing its reliance on risk assessment as a tool for evaluating license applications. If the PRA isn't available to the public, I don't understand how members of the public are going to be able to evaluate the adequacy of license applications. This also has an effect on national Environmental Policy Act considerations because the PRA is often the underpinning of a NEPA accident analysis. So, to me that's a very, very serious problem.

And then there's a recent proposed rule on aircraft impact. I certainly have a lot of problems with that rule, but I'm not going to go into detail here. But one of them is that it appears these impact assessments are going to be kept at the site of the license applicant, so they won't be subject to any kind of public review.

It appears to me that the purpose of that rule is to give the public some sense of satisfaction that the NRC and industry is looking at these issues. But if we're not allowed to see the underlying documents, then it's not reassuring. It's not useful to the public.

So often that I find in licensee documents, government documents, the assurances on Page 1 are undermined by the details on Pages 2 through 10. When you get into the fine print, there's often problems that when they're brought to light can be dealt with and safety can be improved. But if the public only gets the bare summary that's given by the license applicant to the NRC, that process can't happen.

I'd like to turn now to the issue of the Freedom of Information Act and the ADAMS system. Over the last couple of years the amount of resources that the NRC has devoted to Freedom of Information Act compliance has gone down. I did a little table and did a trend of how long it takes the NRC to -- the median number of working days to process complex requests.

Well, in 1999, it was kind of high. It was about 75. Then from 2000 to 2004, it was down in the '20s, '30s, and '40's. In 2006, it was 230 days. It just jumped. There's been a drastic reduction in the number of people, staff in the FOIA office, and I really urge you to look into that.

The FOIA is one of the most important tools that the public has to understand the regulatory process. It's where you get the details which are so important in NRC decision-making so that there's some decision, you see a summary of it and if you can FOIA the underlying documents you can begin to understand what was the technical basis for the decision and you can make an intelligent comment on it. But if it takes you months and months to get the

documents, the decision-making time may have passed so that you wouldn't be able to have a positive effect.

Another problem is it is my understanding that when a document is entered into ADAMS, its default classification is non-public. In order to be released, the non-public classification must first be lifted and the results are often just ludicrous. Dave Lochbaum at UCS says he often can't find his own documents in the PDR. That's something that really needs to be addressed.

One thing that's been very frustrating to me is as a lawyer, I rely on SECY Papers to understand what the Commission's rationale was on for various rules. Since September 11th, of course, the NRC has withdrawn a number of SECY Papers from the Public Document Room. As a member of the public, if you go on the NRC's website and you want to see what are the SECY Papers that were written in the last year or last couple of years, what are the subject matters of these papers and are they available or not.

Instead of seeing a listing of all the SECY Papers and some classification listing as this is being withheld, this one is public; the ones that are withheld aren't even listed. There is no number, there's no title. You can see gaps between the numbers of the SECY Papers, so you know there's some that are missing, but you don't know what they're about. You don't know whether maybe if you requested one you might be able to get. Maybe somebody made a decision to withhold it that should be revisited.

If you don't even know the title of the document, if you don't even know the subject matter, as a member of the public you can't do anything. And then it becomes -- the NRC starts to seem like this black box that so many things are just -- you don't have enough information to even know what's being withheld.

I don't have any question that there is information that does need to be withheld from the public, but if it's really going to be an accountable system, information maintenance system, there has to be a process for identifying the information and explaining why it's been withheld and then allowing discussion. Is this a good idea or not? Does it meet the standards so that the public has an opportunity to contest that.

In a recent Inspector General report the IG found that the NRC had no written criteria or guidelines for making decisions about whether to automatically release SECY Papers and Staff Requirements Memos. So, there's another area where we really could use a renaissance, a new look by the NRC. It's been some years since September 11th. There was a reaction after September 11th and now there needs to be a reassessment putting back into balance now that we're not in emergency any more. It's time to rebalance it. It's time to put in place procedural protections so that the public knows why documents are being withheld and why they're being released.

Have I gone way over my time? I'm over. I just have one more comment. I really don't get these opportunities too often.

Again, on the issue of security. I can't urge you strongly enough to take care when you balance the need to protect information against the need to disclose it. I thought that in the proposed Design Basis Threat Rule there was a good discussion in there about what are our criteria for when we can disclose information and when we shouldn't. That needs to be applied to all of the information, not just some of it.

It's important to bear in mind that important benefits can be yielded by disclosing information where possible. For instance, in the proposed Design Basis Threat Rule, I believe unwittingly the Commission proposed to reduce the stringency of the Design Basis Threat for theft. I don't think the Commissioners understood. I commented on that on behalf of Mothers For Peace and pointed out that in a licensing case the issue of how to interpret the standard for the Design Basis Threat for theft came up and the wording is very important.

I noticed that after we made that comment in the final rule the problem was rectified. I think that's very important in the post 9/11 era that the threat, the Design Basis Threat should not be reduced from what it was before September 11th. That happened as a result of public participation.

So, please don't discount the value of public participation even in security decisions. Come up with ways that even if you can't disclose extensive amounts of information, you can take it. There are people, knowledgeable experts in the community, that have views to share about security issues and the NRC has no

means of taking their views. I believe that really needs to change.

So now that I've taken so much of your time, I will stop. Thank you.

MR. PARRAN: Mr. Chair, Commissioners. My name is Wilson Parran. I am the President of the Calvert County Board of County Commissioners located in southern Maryland. Next slide, please. Calvert County is the home of Calvert Cliff's Nuclear Power Plant in Lusby, Maryland. It's the home of two nuclear reactors. In March of 2000, Calvert Cliffs was the first nuclear power plant in the United States to achieve relicensing. That was a process that we went through with the NRC.

Calvert Cliffs has 30+ years of operating history with an outstanding safety record. It remains an outstanding corporate citizen within the county and maintains a significant environmental commitment. It's also not only has a long history of safe operation, it's also a major economic engine for Calvert County. It contributed $16.2 million in taxes last year and has been a stable tax source since fiscal year 1973. It currently employs 800+ employees on site. Next slide, please.

To give you a historical perspective. Calvert County's relationship with the NRC began after Calvert Cliffs Nuclear Power Plant came online. The licensing occurred prior to the Nuclear Regulatory Commission’s creation in the '70s. These two reactors went on line; however, the NRC oversaw the relicensing of the Calvert Cliffs process. NRC process was outstanding. NRC ensured significant public participation and the NRC also addressed all the regulatory questions and

constituent concerns. We're talking six years ago, seven years ago when we went through that process.

Clearly at this time the demographics of the county have changed from a rural county when the first two reactors went in. In 2000 a significant growth had taken place, but that commitment had always been there to support the relicensing. That process allowed for significant public participation and everyone had a chance to raise questions and those questions were answered. I would applaud the NRC for that process that took place in 2000.

Calvert Cliff's Nuclear Power Plant is currently under consideration for a third reactor. I think we all know that. The NRC involvement has been proactive and positive. The NRC approached the county. They called me . They wanted us to clearly understand the process up front of what it means to go through the process of doing an analysis and potentially making a decision for a third reactor.

When I was contacted, we invited the NRC to come to our public meeting which was actually recorded on Comcast and it's available for the public to see. They went through the process in terms of their involvement and the evaluation of the economic impact statement that was filed. That night, they also had a meeting that was held in Calvert County where citizens and the public were invited to just participate and express their comments in any way which they thought they wanted to.

We had about 300 people show up at night. They represented all

spectrums; some in support of the third reactor and some not in support. Some with just questions as to what this would really mean with three reactors in Calvert County. But I appreciated the opportunity to participate in that process and also to have citizens participate in that process to share their concerns.

The main thing as we go through this process is to ensure that all concerns are addressed and that the public has an opportunity to really express their concerns or express their comments in favor of.

We also communicated to the NRC. This was back in August of this year that the five commissioners were the governing body in Calvert County. There are actually five Commissioners. We all sent a letter of support to the NRC. We would support not only the potential for a third reactor, but the third reactor actually taking place in Calvert County. Because of the historical and the current approach, Calvert County remains confident in the NRC process. Next slide, please.

Calvert County understands, and is comfortable with, the NRC. We understand that you're an independent and technically oriented government agency that only evaluates the safety of the proposed plant and its potential impact on the environment and the surrounding community.

Just to point out, in southern Maryland we have three counties and the three counties have -- next month we'll issue a resolution supporting the third reactor in Calvert County, if that actually comes about. So we do communicate as

a region and we do have the support as a region. We know that you're not an advocate for nuclear power or for the proposed expansion. You provide an unbiased, independent review process. Next slide, please.

NRC's role in Calvert County: Calvert County is appreciative of the NRC's approach and trusts the regulatory process and oversight. Calvert County encourages the NRC to continue to provide outstanding public information, to be accessible, to be responsible to constituent concerns, and to be open and responsive to citizen input.

Since that meeting in August, there have been several opportunities for me to discuss the potential nuclear power plant in some detail from the environmental perspective. When questions have actually come up, we actually want to refer those questions to the NRC so that we do have one, a repository of those kinds of questions and what the responses are and we can share that in future meetings as we go forward. And any concerns as we go through this process, I feel should be answered.

Calvert County supports the potential expansion. What we've done, clearly, we have two reactors now. We know there are other reactors around the country and that we are in a competitive environment. We've already granted a 50% tax credit for the new construction. That is for the new reactor if it's built in Calvert County. It does not impact what we currently have there, but potentially that would mean that for the first 15 years of operation there would be a 50% tax credit that

will go of course to 0% credit.

Calvert County stands ready to share in our nation's responsibility to provide resources that produce energy to minimize the impact of our global environment and reduce foreign energy supply reliance. Calvert County looks to the NRC to continue to address constituent questions and concerns throughout this process.

The bottom line, in summary, I would say that as we go through this process, we as a county and also the NRC will have to listen to clarify any questions or concerns that are coming up to make sure that we, one, understand those concerns and two, that the concern is actually addressed in terms of it could be an environmental concern, it could be a safety concern.

We're very proud of the fact that the reactors that we have now actually have a 30-year+ safety record. That's very important as we go into this process to understand that we've been there, we've done that. We've lived with it for more than 30 years and we welcome the opportunity to have another reactor there. I encourage that response to those concerns and questions be quickly, so that we do build that repository of responses and identification of any questions.

One of the things that I want to note is that as the demographics have changed, the nuclear reactors went online in 1976, '75, and '77. Calvert County had about 25,000 people. Today we have 88,000 people. I also want to point out the same kind of support that we had back then, back when we were a rural

county and decided to welcome two nuclear reactors, that same public support within Calvert County is there now.

From that perspective, with five Commissioners there all supporting the reactor, there are some concerns from some organizations, but overall when I look at the change in demographics, but also the consistent level of support that's there in Calvert County for nuclear energy, that's something that I want to make sure that you understand. There is total support from at least the elected officials down there. Thank you very much.

CHAIRMAN KLEIN: Thank you. Louis

MR. ZELLER: Thank you. Good morning. My name is Lou Zeller. Since 1986, I have been on the staff of the Blue Ridge Environmental Defense League. For the last two decades we have worked on a variety of environmental issues in the southeastern states where we have members; that would be Virginia, North Carolina, South Carolina, and eastern Tennessee.

I appreciate the opportunity to address the Commission this morning. As you can see from the title, the first Viewgraph, it is our opinion based on our experience that environmental justice in the broadest sense requires public participation and my comments today will center on the ability of the public to affect the public process to have its opinions heard to get information and also with some specific concerns in terms of the health impacts that we are seeing around nuclear reactors.

The Nuclear Regulatory Commission has a special role here, of course. In my experience, our first challenge to a license proceeding and intervention about six or seven years ago now, I remember coming into the Federal courthouse in Charlotte, North Carolina, and seeing two tables set up. One table was ourselves, our technical expert and our attorney. On the other table were lined up the utility, representative attorney, their consultants, and to my dismay the Nuclear Regulatory Commission Counsel. So it had the look and appearance and, in fact, feel of it was us versus everyone else in the world.

I was pleased in our most recent appearance before the Atomic Safety Licensing Board to see a third table there representing, or symbolizing perhaps, a change in that policy and I hope that is continued into the future where the Nuclear Regulatory Commission will be interposed between the applicant and their counsel and the general public. Next slide, please.

As I mentioned, I have there the section -- this is from the -- there's no citation on there, but that is from the Boston College Law Review which outlines the Clean Air Act Section 112 which details the impact limits on radio nuclides to the general public. Of course, you know the main process for electrical generation produces radio nuclides which are considers hazardous air pollutants under the Clean Air Act.

It's important to note that EPA, Environmental Protection Agency, has not set major source threshold for radio nuclides under 40 CFR Part 70. The

regulations for these emissions are governed by the Nuclear Regulatory Commission as minimum under 10 CFR Parts 20, 50, 51 and 100. However, we note that on 10 CFR20, 1301, the Nuclear Regulatory Commission may impose additional restrictions on the total quantity of radio nuclides that a licensee may release in affluence in order to restrict collective dose.

Why do I say this? This is because it is apparent to us and becoming clearer and clearer that there is not a sufficient attention paid to the aerial emissions from nuclear power stations. The Environmental Protection Agency has done work on maximum achievable control technology -- next slide, please -- for radio nuclides from coal-fired power plants and truth to tell, there are often radio nuclides there and the EPA has looked at a maximum achievable control technology as required under the Clean Air Act.

The question is why is the MACT, the Maximum Achievable Control Technology, for nuclear power electric generating units still in limbo? It's just difficult for me to understand. And I know that when I talk to experts in this field people are often curious as to why we would bring up air pollution or the Clean Air Act, but so far as I know, the Clean Air Act has been delegated to the Nuclear Regulatory Commission. How those rules and regulations are put in place rely on adherence to this technology based standard which is MACT. Next slide, please.

The map before you shows you why I believe I made the trip here to Rockville from my home in North Carolina. You might tell from the red dots that

most of the new reactor licenses, the COL application sites, are in our service area of the Blue Ridge Environmental Defense League that is in the southeast; not entirely, but certainly a great number of them.

The Inspections Test Analysis and Acceptance Criteria, the ITAAC process, according to Nuclear Regulatory Commission are supposed to confirm that a facility has been constructed and will be operating in conformity with the license well and good, but apparently, I believe this is at odds with the nature of the Combined Operating License process under 10 CFR 52, which is intended, again, according to the Nuclear Regulatory Commission, to avoid inefficient use of NRC resources to review design as construction is proceeding.

I fear that we are headed down the path that we were moving down years ago when the two-step process was changed to put in place the current process for early site permits and for combined operating license. I would perhaps remind the Commission that according to what William O. Douglas said in 1961 before the Fermi accident is that millions, and today billions, have been invested the momentum is on the side of the applicant not on the side of the public.

It was an ill-fated effort that terminated abruptly on the morning that Chairman Hendrie was advised by Governor Thornburgh of Pennsylvania that pregnant women and young children should no longer be within five miles of Three Mile Island. This was former Nuclear Regulatory Commissioner himself who testified before Congress reflecting on the change of the earlier two-step process

to their present one step process.

New safeguards, new attention to detail, new attention to public participation must be done at this point and as I said before, the Nuclear Regulatory Commission may impose additional restrictions on radio nuclides, but it may also make sure that information is gotten to the public in a format which is more easily digestible.

The ADAMS Web site, as you know, has had problems from the beginning, but not all of our members in the state of Georgia or North Carolina or South Carolina, or perhaps this experience is reflected across the country, have access to computers. So the ADAMS system with its problems , they are blissfully unaware of. The provision of documents to reading rooms and local libraries is well and good, but there needs to be other means of putting this information out. For example, video or audio pod casts can now be downloaded commonly.

It seems to me that these additional technologies should be employed in the cases of populations where people are either actually illiterate or functionally illiterate and in terms of technical documents, that is relatively easy to understand. Next slide, please.

In terms of the -- yes, that's the one. I'm reading to you your own Information Notice here, but I just wanted to put this up here because it discusses the experience in Finland and the United States on reactor fuel cycle facility construction is resuming after a long hiatus, but it's important that the facilities

constructed, it says, “and will operate in conformance with this license and the NRC regulations”. In this Information Notice as a reference to -- the next slide, please -- the Finnish Radiation and Nuclear Safety Authority, that would be STUK, and at the bottom here I have emphasized “furthermore, there is also room for improvement in the practices of the regulatory body”. This is a review of guidance on subcontractors at the nuclear power plant which is ongoing. This is December 2006 that this report was done.

Apparently the progress on new reactors in that country is proceeding, but they are beginning to see problems with contractors; problems related similar to our ITAAC process, which I think our -- a word to the wise that we should do a better job and pay a lot more attention to this process in terms of getting information to the public because the public can catch things which will not be apparent to the Nuclear Regulatory Commission and will raise questions that Commission staff may not recognize.

The history of the International Environmental Policy Act in this country is designed to gather input from the public; information which the regulatory agency, whether nuclear or otherwise, are not aware of and it's doubly important then if we are going to move forward with new reactor licensing that this process be opened up and that a new means of getting information to the public and from the public is put into place. The next slide, please.

This is where the rubber meets the road. The issues of environmental

justice, as I said broadly, must be considered. According to President Clinton's environmental justice directive, that is now over a decade old, where he directs to the greatest extent practicable and permitted by law that each Federal agency shall make achieving environmental justice a part of its mission. I restate to the greatest extent practicable and permitted by law.

He did set up a working group which names many of the Federal agencies under his direction. I believe that the Nuclear Regulatory Commission should pay closer attention to this. In the development of agency strategies in that executive order, the President pointed to ensuring greater public participation and also identifying differential patterns of consumption of natural resources among minority populations and low income populations.

As you saw from the last Viewgraph, that Senator Thomas from Georgia General Assembly pointed to those impacts and that is embodied in the Senate resolution. Our own staff which live in the area around the Vogtle nuclear reactor in Augusta, Georgia have pointed out this very fact that people that are living in that area rely on that river, which is contaminated with tritium and cesium from ongoing nuclear reactor operations at the Vogtle nuclear power station. This is not unique.

Our studies have shown that there is an increase in mortality around that plant. And in fact, Burke County, Georgia where the Vogtle nuclear station is located between 1982 to 1990 period to the decade after, the death rate from

cancer in that county increased by 24.2%, whereas in the state of Georgia the death rate by cancer dropped by 1.4%.

Can we say this is caused by nuclear energy? We can't say that. Can we say that it is because of the Vogtle nuclear power station or the Savannah River site? Again, it's difficult to determine. Until we have dose related information with regards to these impacts, we may never have dose related information. Because of the way things are done in the world, there is no way to tell whether Mr. and Mrs. Jones have been exposed to radiation in their home in Burke County, Georgia or Akin County, South Carolina or anywhere else in United States. So we may never have the smoking gun in that case.

What we do have is epidemiological information which is based on public records collected by the Centers for Disease Control and available to the public. When we look at these, then we find that there are inexplicable impacts in that area.

I would just finally point out two things which I brought here today on the subject of environmental impact in public health. That is a commentary on "Manipulating Public Health Research: The Nuclear and Radiation Health Establishments" by Rudi Nussbaum. This was published in the International Journal of Occupational and Environmental Health 2007 in which she states in the abstract: "Industry, government and military have systematically suppressed or manipulated epidemiological research showing detrimental effects on human

health from accidental or occupational exposures to ionizing radiation."

The other is a published article: "Meta-Analysis of Standardized Incidents and Mortality Rates of Childhood Leukemia in Proximity to Nuclear Facilities". This is published in the European Journal of Cancer Care this year. In abstract it states that "the meta-analysis was able to show an increase in childhood leukemia near nuclear facilities." Again, this does not support the hypothesis to explain that, but again we see in epidemiological information that there are impacts.

So, returning to the general theme of environmental justice and public health, we must be able to determine why these impacts are happening. A better handle on controlling aerial emissions, not only water emissions from nuclear power stations, but air emissions and the implementation of the most stringent Federal regulations available to this body, I think, are called for at this point. The public should be able to know what they are being exposed to before something happens. Thank you.

CHAIRMAN KLEIN: Thank you very much. I'd like to thank all of our panelists for their comments and now we will begin our questioning with Commissioner Jaczko.

COMMISSIONER JACZKO: I think I will start by saying I appreciate the comments of all the speakers. I'm particularly pleased to hear from Mr. Richards that the emphasis is on quality in applications; that's something I've been talking about for some time and can't take credit for being the person that

originated that idea, but certainly it's something I've been interested in and I'm glad to hear that that's certainly a focus. I think it's something that needs to continue to be a focus as we go forward.

I want to start a little bit, and unfortunately I probably have more questions than we have time in the day for. I'll try to limit these to some specific ones. I appreciate the comments about public participation in the process. I think it's extremely important and it is always a challenge for a technical agency like we are to make our efforts accessible to the public, but I think it's something that we need to continue to do and always improve on. Certainly, the last three speakers all talked about the importance of that.

Perhaps this is a question for you, Diane, about your experience with the process. Mr. Zeller, you talked a little bit about the symbolic significance of the table. I think that is certainly an important thing that we do need to keep track of because I think sometimes there is an impression that our staff is acting in alignment with the industry and I think that is rarely the case.

I think our staff is there as an independent representative, but I think there's improvement that we can make in the hearing process to make that even more clear than it is right now; more than just symbolic efforts of having at least a separate table.

So perhaps, I don't know if either of you would want to comment or anyone would want to comment certainly on the ways that you think we can improve on

that particular aspect because I think in the end it is crucial that our staff continue to be recognized for the independent experts that they are. I ask if you have any thoughts on that, either Diane or Louis or anyone, as I said.

MS. CURRAN: I agree with Lou that there is an appearance that the staff and the license applicant are lined up. I think it has to do with -- the staff does its own review of the application and generally by the time you get to the hearing, the staff has informally resolved its concerned about the application with the applicant and has signed off on it and so then is defending the application.

I think one thing that might help would be not getting the staff involved in disputes over the admissibility of contentions because certainly then the staff appears as the gatekeeper to the hearing process. That could be a major improvement, but honestly, it would take some thought to come up -- I think it would be a good idea to do it, but I think the staff plays a role, the lawyers play a role of trying to protect the staff members from having to testify in hearings.

As long as they have that job, then it can look like they're trying not to get the truth out, not to get the facts out to the public. Not sure what you do about it, but I'd love to talk about it further.

COMMISSIONER JACZKO: As I said, I think it is an important issue and I think it's more of an appearance issue than anything. I think sometimes appearances can be unfortunate. Do you want to add something?

MR. ZELLER: Well, there was recently a COL preliminary meeting in

South Carolina, Gaffney, South Carolina. Previous to that point, meetings, whether for environmental impact or for other meetings by the Commission, have been held in public buildings, whether it school buildings, auditoriums or civic centers, government buildings or what not. But in Gaffney, South Carolina in the last month there was the very first meeting that was held, a public meeting in a fundamentalist church.

I raise this now because I think this is a disturbing trend going in the opposite direction because of the appearance it gives. If appearing, and the venue for the hearing is a neutral place; that would be a court house or something, that's one thing, but if it is held in a private establishment, which is a church or it could be any other business private establishment, it gives the appearance that that entity or that venue is lending its support for this licensing or this new nuclear license.

This is not anything about religion, really, but as you know Jesus threw the money changes and the people were selling doves out of the temple and those thoughts --

COMMISSIONER JACZKO: I don't think that's an appropriate discussion at this time, but I appreciate the comments about the need to have venues that are appropriate venues.

MR. ZELLER: Correct. That's my point.

COMMISSIONER JACZKO: I guess if I could turn for a moment back

to an issue that I think came up quite a bit in the earlier discussions about quality of applications. As I said, I think there have been some concerns that I've expressed about the quality of some of the submittals we've been seeing and the completeness of submittals.

One of the things that I think is clear is we put a lot of effort into guidance documents and to making sure we have the process that is well understood and clear. I think, certainly, we have some ways to go even with the current process for the application submittals that we're dealing with.

I'm wondering; we still have some time before we get to dealing with issues for ITAAC, certainly if we get to the point of approving any applications, but what are the specific issues right now that any of you see about how we can really clarify what our expectations are for ITAAC? I know we're having some workshops, but I don't know if there's any issues you want to comment on at this point. Perhaps more a question for Mr. Richards or Mr. Cummins.

MR. RICHARDS: From the ITAAC process, over and over we've just discussed let's just continue to have these discussions. Right now you have ITAAC listed in the design certification. They appear to be rigorous. It's a major area of focus early on the project. I've got a manager that's in charge of nothing but ITAAC and the startup process and starting to build that organization.

The NRC and the staff and the industry and NEI are currently working together to develop this detailed guidance document and it includes things like

basis closure letter templates and how we're going to work through each one of the designs for ITAAC. And then Part 52 provides guidance, so I say let the process work and just keep the communications clear and we'll be presenting NRC and the industry will sit down and come to what is the best for the regulator, what's the best for the public and what's the best for the industry to come up with a very comprehensive program. I just say let the process work.

COMMISSIONER JACZKO: Well, I appreciate that. I think we will -- it's certainly one that will be a complicated and challenging part of what we do as we go forward in the hearing and certainly in the construction process.

I want to ask another question as we go back to some of the issues with vendor inspections. I think the timing is appropriate. As I was going through some of my reading recently, we just issued an Information Notice that was an update to an Information Notice I think we issued in 1991 or something talking about fraudulent equipment and fraudulent materials.

You talked a little bit, Ms. Grier, about NUPIC and that process for looking at ensuring that there are not fraudulent parts. I'm wondering if you can talk a little bit more about some of the things that you'll be doing and to what extent, given the global nature of the supply chain, how you will have the ability to access not only the contractors or the suppliers, but the subcontractors and sub-suppliers. That was really the issue that came out in this Information Notice was it was just reinforcing that. It involved in a particular valve I think that was falsified from a

particular company.

MS. GRIER: It was refurbished.

COMMISSIONER JACZKO: It was refurbished and it was updating not only the fact that there may be additional suppliers that had used this particular piece of equipment through subcontracting chain or sub-supplier chain. I think that's a real crucial piece. Maybe you can touch on that a little bit.

MS. GRIER: Basically, we've been in operating mode for the last 20 years -- 15, 20 years -- and the volume of our procurements have not been to the point where fraudulence has been a huge issue for us. But we do see that with the new construction that those volumes are going to increase and the potential will increase.

We do perform audits of sub-tier suppliers to our major suppliers. When we audit our prime suppliers, we make sure that they do have adequate oversight over the sub-tiers. In some cases, especially for some of our major projects where we've replaced steam generators, reactor vessel heads, we actually witnessed and gone with our prime contractors to evaluate how they're overseeing the sub-tier suppliers and making sure we're getting good, quality product.

Again, we expect that to continue on as the new plant construction goes ahead. As I mentioned earlier, we have a subcommittee that's going to set up to evaluate how it can look at some of those common suppliers. We'll be working with the prime contractors to identify who those suppliers are and which shops we

actually want to witness the work in.

COMMISSIONER JACZKO: Thank you. As I said, I know the Chairman has raised this issue in speeches that he's given about the importance of ensuring that the supply chain does not get tainted by fraudulent parts. This will be an important issue and one that I think will continue to be a challenge for us as an agency as we move forward, given the fact that a lot of this work -- manufacturing may not be done in this country, but may be done --

MS. GRIER: Right. We've already had some experience with that. I think 15 of our audits that we do through NUPIC are currently international suppliers. We expect that to probably increase, of course. Again, outside of that for those specific projects or major components we've done other work and more detailed oversight.

COMMISSIONER JACZKO: Thank you.

CHAIRMAN KLEIN: Commissioner Lyons?

COMMISSIONER LYONS: Well, I too, would like to thank all six of you. I think you each brought a very important perspective to this discussion and certainly with the increased interest in new reactors around the country you're all raising issues on which we need to focus.

I was particularly interested that at least four of you, starting with Mr. Richards, Ms. Curran, Mr. Parran and Mr. Zeller all expressed in perhaps slightly different ways the importance of public participation; starting with your comments

on open communications, Mr. Richards, and then the rest of you also continuing on that. And certainly, I think the Commission has been very, very clear that we value and appreciate the importance of public participation.

I thought, Mr. Zeller, your comment on the two versus three tables and the NRC staff not appearing as an advocate of either side, if you will, I think that's a well chosen - that's a very appropriate point to be making. With regard to some of your other points, though, I would note that there is extensive environmental monitoring that is done at all of the sites and certainly is publicly available, which might address some of your concerns.

Ms. Curran, you made a number of suggestions and some of them I found very, very interesting. I'd be interested in exploring them further. You made the comment -- one of several you made was that all titles are not listed in ADAMS. I think that's a very interesting point. We certainly have reasons why papers are not listed, but you have a very interesting point that the public would be well served by knowing the range of subjects that we are considering even if the details might not be appropriate.

You also suggested efforts to make more of the aircraft impact assessments more public. That's one way I find very difficult to agree with you because that is going to very quickly get into security information that I don't think would be appropriate to share.

You mentioned concern on the PRAs as to whether they're on site or

headquarters. That's a subject that at least I'd like to explore further with the staff later because I can imagine that some aspects of the PRAs may start to relate to security information, but I can see a considerable benefit in having large blocks of the PRA more available to the public. I'd like to explore that with the staff when we have them here this afternoon.

As one specific question to perhaps that side of the table for Mr. Perran, I very much appreciated the comments you made about the involvement of NRC in Calvert County. Would you suggest additional areas that we should be involved?

MR. PARRAN: I think you're involved in a lot of areas, not only for the process for the new reactor, but also the operation of the plant. As we meet with the staff at the plant, NRC folks are there to make sure that the safety aspects and environmental concerns are being addressed not only for the new reactor but ongoing.

I would say based on my interaction and what I've seen so far, I like the fact that you're involved in the operation. You also participate in emergency management, emergency response piece of it which is very important. We have a major exercise coming up next week. We go through that every two years. I would say that I think your involvement has been adequate.

COMMISSIONER LYONS: I appreciate that.

MS. CURRAN: Commissioner Lyons, would you mind if I responded to something you said about one of my comments? You had mentioned that you

couldn't see that it was a good idea for the NRC to require submission of the aircraft impact assessments and that perhaps some parts of the PRA should stay on site.

I think it's important to distinguish between -- well, in order to keep documents secret or confidential, in my view, leaving them at the site is not the appropriate tool. The appropriate tool is for the NRC to review the document and decide does it meet an exemption to the FOIA or not. I think that serves the purposes of the FOIA best by increasing the accountability of the agency to the public; that it's not just a licensee's determination that they don't want to share the document, it's NRC's determination that the document is legitimately exempt from the FOIA.

Again, it's important to be able to have that debate, a public debate, about what should be disclosed. I also wanted to -- I didn't mention that I became aware recently of an OIG report about the auditing process for license renewal. It's OIG-07-A-15, in which the IG raised concerns about the adequacy of an NRC review that's based on the auditing process where the reviewers have to go to the plant site and sit there and read the documents on site. You can't take them back to the office to really study them closely.

So I think that's another thing to bear in mind when you're considering this policy of leaving significant documents at the site.

COMMISSIONER LYONS: Thank you. Mr. Perrin, one other

question. Just curious from your perspective as a --I'm not sure of the exact title -- County Commissioner. Have you toured Calvert Cliffs and have you had direct interaction with our resident inspectors?

MR. PARRAN: Yes. We actually have an official tour when a new group of County Commissioners come on and then we meet with the Calvert Cliffs executive staff once a year to talk about plans that they have in place, the operations, and any kinds of schedules or routine maintenance that they have; shutting down reactors and bringing up reactors. We do have interactions there.

When I go there, of course, the NRC staff members are there, also. I've met them. We also get involved in terms of the emergency management piece. I think that's the important piece for at least Calvert County. When you look at –we are a peninsula and there's some concerns because there's some increase in population that if there's a problem, what happens? We have a process that we do go through, as you know, every other year we have a detailed process and other times we go through a process and as a result of that, I feel that we have a really improved emergency management considering the size of our county because of the fact that we do have reactors there. But yes, we do get involved.

The other question you asked earlier about what the NRC could do; any other thing it could do. Sitting here thinking, as we kicked off that process back in August of this year, as you go through the process I offer the opportunity for the NRC to brief the County Commissioners in public and we can record that and

that's an opportunity to also get information out to the public in addition to having the public meetings that you have.

COMMISSIONER LYONS: I appreciate those comments. As I have been visiting sites around the country, I try to encourage the management of each of the plants to involve local elected officials. I'm very pleased to hear that's happening.

Turning back to this side now, I have more questions than I have time. But a question for Ms. Grier, for Sherry. As you discussed some of the challenges that you would have from a procurement perspective in the international community, have you explored how the so-called MDEP program, the Multinational Design Evaluation Program that the NRC has been conducting with a number of other countries; have you explored how that could fit into the NUPIC interests?

MS. GRIER: We've heard some about that program through the NEI QA task group meetings we've had with the staff. I'm not sure right now how that could fit, but we would continue to explore that with the staff.

COMMISSIONER LYONS: I guess I'd really encourage you to do that. I think there probably are some very, very --

MS. GRIER: Some potential opportunities there.

COMMISSIONER LYONS: I really think so.

MS. GRIER: I think so, too. I think there are some other regulatory bodies that are not participants of that and have had some questions about how

NUPIC works within our industry and I know that some of the staff have talked or provided input to that regulatory body about who to contact here. So I agree, there are some good potential opportunities.

COMMISSIONER LYONS: That would get to one other question I wanted to ask you in the last few seconds. You said there were 13 countries involved, but your list had only nine.

MS. GRIER: Oh, I'm sorry, miss counted.

COMMISSIONER LYONS: It didn't include countries -- I'm just curious -- it didn't include some major supplier countries like Japan and France. Are they not members of NUPIC?

MS. GRIER: They are not.

COMMISSIONER LYONS: Interesting.

MS. GRIER: Yeah. It is to us, too. We've had other inquiries from other countries, not Japan or France, but maybe Britain.

COMMISSIONER LYONS: I was going to ask specifically on France and Japan and they're not members?

MS. GRIER: They are not members.

COMMISSIONER LYONS: Okay. Interesting. I'm out of time.

CHAIRMAN KLEIN: I think I'm like my fellow Commissioners. I think we all have more questions than we have time, but let me just comment on the public participation. Being a relatively newcomer to the agency as a

Commissioner, I was a former licensee and was very involved in the public part of the NRC, but I think the fact that we're holding this hearing demonstrates the Commission's view on public participation and the importance of it. So, I think we all believe in that as well as our staff. We are a very open agency.

In areas in which we can do better, some suggestions, Diane, that you gave we need to hear those and factor those into our process to the extent that we can. On that subject, there's probably a difference between public participation and public education. I guess I have a question. What can we do better for public education in what we do as a Commission and regarding nuclear energy?

MS. CURRAN: Well, I think the more you can educate the public about how to use the system for gaining access to the hearing process, the ADAMS system. As Lou was saying, not everybody has access to ADAMS. If you don't have that, how do you get the message out to the public? The information is here if you want it, here's how to get it. I think that would be very useful.

CHAIRMAN KLEIN: Thanks. A question, you're sort of the public squared being an elected official and a member of the public and I guess my question is from your perspective of being an elected official, do you get enough information from the NRC so that you can then convey to your constituents the concerns they have?

MR. PARRAN: Yes, we do. We're just starting this new process. I would say as we go through the new process and we have the public meetings

that what's discussed in those public meetings are available to the public in Calvert County so that if you can't make those meetings at least you know what's been discussed. I'm a proponent of clarity. If there are questions or misinformation or whatever, that we do clarify that and make those responses available. I think that would help me and other elected officials in Calvert County.

CHAIRMAN KLEIN: As I've often said, a lot of our documents and information are on our websites, but our websites are oftentimes very accurate but very boring. They're difficult to get information. As I often have said, since I'm an engineer, that if you ask an engineer what time it is, they'll tell you how to build a watch. Sometimes we overload you with information, so if there are things we can do better, let us know.

MR. PARRAN: I think one of the things that as you said that, as we interact with the public in a public meeting every week and also we're out there in the public, that we need to make sure that all the Commissioners know where the information is and actually point the public to that website or even have a link from our website to pertinent information regarding the third reactor activity in Calvert County.

CHAIRMAN KLEIN: Thanks. Lou, I guess a question for you; obviously, we're moving into the electronic age. If you look at the way we operate, a lot of information we have now is electronically available. Do you have a sense of what percentage people in your area that you deal with that do not have

computers?

MR. ZELLER: Charles Utley, who is on our staff in Augusta for the last five years, tells me that many people in his service area in South Carolina and Georgia over the last few years have gotten access to computers. So that the trend is more and more as the technology becomes cheaper. But it's still difficult in terms of things that other people take for granted in terms of broadband access and what not.

In rural areas, again, in parts of Georgia, North Carolina and South Carolina, you just cannot get broadband access. So even if you have or can afford a computer, it's difficult. So something else needs to be done.

Charles is the one that works with, for example, our membership and our interveners, for example, which is entirely African-American in some of those situations. So getting the information out, like you say, it is a question of public education as well as public participation. Education has to come before the participation; otherwise people don't know what you're talking about.

The thing Charles says to me, which I think is very wise, is that once you start talking in acronyms, you've lost people. So we can talk about ITAAC. We can talk about MACT. We can talk about other things. It's Greek; or worse, it doesn't register at all. I guess some effort needs to be put into not only the technological end, but also what we say.

CHAIRMAN KLEIN: I haven't followed this, but what about -- you

know we used to have the public reading rooms where people could go and read those documents. It seems to me that one thing that's transferred to that are the public libraries and where they have access to computers. Are you seeing that from your communities that may not have a lot of computers? Do they at least have access to libraries that have the broadband and the encouragement to use it?

MR. ZELLER: Some libraries are very good. The sad fact of public funding for libraries, for example, and in fact even Federal funding, for example, some of the reading rooms -- one of the biggest ones that I know about adjacent to the Savannah River site had most of those documents withdrawn. Now perhaps that was in the wake -- well, it was in the wake of September 11th, 2001, but so many of the documents have been removed for so long that it defies comprehension as to why much of that information was withdrawn in the first place of a historical nature and why it has not returned to its original status as a place where people can go in and read stuff and you're free to do that.

So, pay attention, I believe, to the local infrastructure there. Don't take it for granted that a library -- there may be very nice libraries in cities like Charlotte and Columbia, but you won't see that in some of the communities where these reactors are actually located. And again, I come back to places like Burke County or Cherokee County, South Carolina.

CHAIRMAN KLEIN: If you could give us -- if you see specific

examples of where there is a weakness in a local library that we might provide either some assistance or encourage a utility to that, I think we'd like to hear about that.

MR. ZELLER: Local officials are most cooperative in that way. I think that would be a good way to go; simply a good librarian, for example, in any community will want to do the best job that they can do. The questions of information, I think, are particularly important with regard to the issue of environmental justice and I think this a little bit addresses part of your question anyway in that what we see coming in terms of the environmental justice impacts when environmental impact statements for new permits are done. But I think they're done in a perfunctory manner.

I think the reason that they are done that way is because people are not required, I mean the Commission or the writers of the documents, the applicants, are not required to do a better job. So, it may be a cart before the horse. If you get information out to people who are subsistence fisherman, live on the Savannah River, just for example. They would be more involved in the process and the attention paid to the disparities between different communities and the impacts on their health and wellbeing would be done.

The feedback - you would get feedback - and there would be a clearer understanding of the disparities between rich and poor communities surrounding these reactors. So, that's kind of a roundabout way of getting to the point of this

education needs to be happening and needs to be a deliberate effort and it needs to reach people where they are now.

CHAIRMAN KLEIN: Thanks. Well, since we are talking about reactor inspection activities, I have a question first for the South Texas and then for Ed. I guess the question is, Kevin, for the South Texas Project, how are you incorporating inspection activities that have a curve for the ABWR in Japan? How are you taking those lessons learned and incorporating them for your proposed plant?

MR. RICHARDS: Okay.

CHAIRMAN KLEIN: Then I have a follow-up question for Ed about China.

MR. RICHARDS: Several things we've done there, Chairman, is we've visited the ABWRs in Japan. Joe has been over -- since the earthquake has been over there. We have hired TEPCO as a consultant to our project that will bring once this latest issue -- bring all of the issues back to us for evaluation into incorporation into our programs.

In addition to that, the industry, other industry folks have been over there and seen it and already sent us information associated with it. INPO will be working with us on the integrated lessons learned. We're taking all those lessons learned, not just the ones in Japan, but the ones from the Finland project, from the Japanese, from the Lungmen project. We've got someone at Lungmen right now

actually working together with lessons learned. We will take all those lessons learned.

I've assigned a manager in charge of the lessons learned, for example, at STP and we're building a lessons learned program that will require various levels of close out on those lessons. Some of the lessons will have to come to me to get approval to close them out once the plant has put them together. Our whole goal will be to institutionalize as many of those as we possibly can into our processes.

CHAIRMAN KLEIN: Ed, obviously China will be starting up soon. How will you get those lessons learned in China into both the industry and the NRC?

MR. CUMMINS: That China project formally starts on January 1st. In fact, long lead material and other things are going on now. I'd say the first comment that I have on China is that this is a wonderful opportunity to complete the design because we have no choice but to complete the design quickly in order to meet the goals of the China project.

We have the scope of design and procurement of, I'll say, sophisticated safety equipment. So there will be a challenge that we have on supply management in a Chinese scope for the bulk of the things that aren't really sophisticated safety equipment. We are trying to figure out how we're going to address the quality things that are related to that in a supervisory way and to deal with those things.

I think in the end we will find that there are some suppliers in China who are very good suppliers and can supply in the United States as well. Maybe we'll find some that are not quite as good and are not acceptable for international supply. Those we will have to counsel our Chinese customers to take corrective action programs to deal with the sufficiency of that equipment.

And then, we'll have the first attempt to put these modules together in a way where everybody always worries about how it fits when you set it in. I think we have thought a lot about that and to make a little bit of flexibility on deviations from the actual shape or size. If you're slightly off, can you still get it in? I think we will learn some things from that that will be very instructive for our U.S. implementation.

CHAIRMAN KLEIN: Thank you. Even though we're approaching our bewitching hour, we'll go for a very short second round. Commissioner Jaczko?

COMMISSIONER JACZKO: I guess at this point I don't really have any more questions, but just two very brief comments to wrap up. One, I appreciate everybody being here. It's been a very interesting discussion and to Commissioner Lyons' points about the PRA in particular. I think ACRS also would be very interested in having the PRA in-house because I think as they are at the reactor sites, it makes it more difficult for ACRS to able to review those as well as members of the public. I think having those submitted with the applications would certainly provide an advantage there.

The last point that I would just make and it touches a little bit on something that you talked about, Ed, and it was in your sides extensively is this idea of finality of design. You mentioned that customers want 100% and probably as designers you want less than 100%. And somewhere in between there is the right answer. But I think one of the things that continues to frustrate me is what I guess I will call the failure of Part 52 to get us closer to that final design.

We've talked about this in other meetings about the use of design exception criteria. All of those things are pushing back those final design details farther into the construction phase which was really counter to the intent initially of Part 52. The idea was to have a complete design so that by the time you got to construction, we were not designing anymore or that you all were not designing and we weren't having to review design changes. You had a predictable process.

So, while again in the interest of time perhaps something if you have thoughts in the future about what we can do to increase our ability to get designs finalized more, we still have several design certifications in review. Really getting that done, I think, is going to be important aspect for this process to move efficiently. That was all I had. Thank you.

CHAIRMAN KLEIN: Commissioner Lyons. Any last-minute questions?

COMMISSIONER LYONS: Maybe just a couple questions on this end of the table. On the modularization, Ed, that you discussed. You certainly

mentioned the extensive use in Japan for construction. You mentioned your plans in China. I'm just curious, and maybe it's too early to say, but do you have any feeling for the U.S. AP1000 to what extent you will be using the same modular construction companies that you'll use in China? I'm just curious in general to what extent the U.S. companies have capabilities to build the modules that you need?

MR. CUMMINS: We have understood and maybe a comment for Commissioner Jaczko. We actually would like to have the design 100%, too. The issue always is cost and benefit and what you can financially support. Yes, we found that at some point people like Westinghouse or the architect engineers need to have the module maker help with the design because how they weld plates or how they fit plates together or how they bend plates is part of a design process that we don't appreciate all the issues associated with it.

So we have a relationship with, for example, Electric Boat in modularization and one of our owners, Shaw, has done some extensive modularization in other industries and has a big piping and hangar fabrication. So we're engaging in the United States those people to do a phase of the design which is probably a phase that we didn't recognize two or three years ago that we even had to do, which is another comment on definition of 100%.

We think that when we have the configuration defined, we have the design; but in fact somebody has to figure out how you actually build it. That's another

aspect of design which is turning out and the standard is of interest to us. So, we are needing to increase the definition of 100% to include design details of modules that we are having the module manufacturers help us with.

MR. RICHARDS: We've got a relatively laid out plan for modularization, Commissioner, that basically we'll be doing modules on site. There'll be some done overseas. Currently, the Japanese will call the reactor pressure vessel a module. So, some of that will be done overseas. We cited an early site. We got word last week. It was in our action plan to go find a place. It's near a waterway. It's not far from the plant. They will be manned with the appropriate trades with the EPC as a prime sub to an EPC contractor.

We've seen modules all the way up to 140 modules. Some of the plants down to 80, 90 modules. We've got each one of those types of modules and we'll just have to figure out how they play out in the schedule and when we need to order them and get them designed. We are well on our way to that. We're going to be relying on it heavily. Its definitely part of the strategy. We think we'll get some good quality out of it because its better conditions, typically.

MR. CUMMINS: Just maybe one other comment. In China, the Chinese construction company has decided that they're going to build the modules. I don't think they decided by themselves, but they decided with the Chinese industry and they are going to create -- it's a very similar process to construction, but they're going to build modules and then they're going to install

modules. That is one of the possibilities.

I think you lose some of the benefits of a stable work force and a stable environment if you have the constructor to build the modules. The same modules will be built in the U.S., but I think under a little different conditions.

COMMISSIONER LYONS: Thank you.

CHAIRMAN KLEIN: Just a final comment as well. Obviously, as Commissioner Jaczko said, we've moved from the theoretical to the real because we now have an application and we're looking forward to testing our processes and public participation as we move forward. Obviously, this is probably more of a comment for Ed. As you finish toward that 100% design completion, don't forget standardization.

MR. CUMMINS: Absolutely. It's even in my name here.

CHAIRMAN KLEIN: Well, on behalf of my fellow Commissioners, I'd like to thank all of you for your comments and your participation today. We are a very public agency and we remain that because that does ensure public confidence in what we do as an independent regulator. Thank you very much. The meeting is adjourned.

We'll start at 1:30 for the next phase.