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Meeting Title: Briefing on Regulatory Impact Survey Recommendations

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Title: BRIEFING ON REGULATORY IMPACT SURVEY REGULATIONS

Location: ROCKVILLE, MARYLAND

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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BRIEFING ON REGULATORY IMPACT
SURVEY REGULATIONS

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PUBLIC MEETING

Nuclear Regulatory Commission
One White Flint North
Rockville, Maryland

Monday, October 15, 1990

The Commission met in open session, pursuant to notice, at 10:00 a.m., Kenneth M. Carr, Chairman, presiding.

COMMISSIONERS PRESENT:

KENNETH M. CARR, Chairman of the Commission
KENNETH C. ROGERS, Commissioner
JAMES R. CURTISS, Commissioner
FORREST J. REMICK, Commissioner

STAFF SEATED AT THE COMMISSION TABLE:

SAMUEL J. CHILK, Secretary

WILLIAM C. PARLER, General Counsel

JAMES TAYLOR, Executive Director for Operations

DR. THOMAS MURLEY, Director, NRR

WILLIAM RUSSELL, Deputy Director, NRR

BERT DAVIS, Region III Administrator

FRANK GILLESPIE, Director, PMAS/NRR

CYNTHIA PEDERSON, Chief, Technical Support Staff, Region III

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

10:00 a.m.

CHAIRMAN CARR: Good morning, ladies and gentlemen.

This morning the NRC staff will brief the Commission on recommendations arising from a three part regulatory impact survey completed over the last year. The survey was an attempt to obtain the views of the industry and the NRC staff with regard to those areas in which NRC requirements and practices might affect the safety of plant operations. We look forward to hearing some of the results of this survey, along with the recommendations of the staff to address those areas which may require a change in NRC's procedures or practices.

I understand that copies of the briefing slides are available at the entrance to the meeting room.

Do my fellow Commissioners have any opening comments?

If not, Mr. Taylor, please proceed.

MR. TAYLOR: Good morning. With me at the table are, from Region III, Cynthia Pederson and the Regional Administrator, Bert Davis. To my right, Doctor Murley from NRR, Mr. Russell and M. Gillespie,

also from NRR.

This effort has been a very useful effort, I believe, for the staff. I think importantly besides what is reported in the paper, we have an increased sensitivity to want to listen to feedback where our actions may, although well intentioned, may be causing difficulties in achieving an appropriate level of safe operation that we think is so important.

So, beyond what is in the written paper, I believe that the staff totally is knowledgeable that ,is has taken place and remains, I believe, open to the important suggestions. While we try to maintain the balance of the necessity to take action, and action for the Commission where appropriate, still many of our requirements, criteria and what we do are an imposition to a degree and achieving the balance is what we're going to try to do.

So, there are examples where we continue to receive information. We want to set that process up within the staff.

With those thoughts, I'll now ask Doctor Murley to begin the formal briefing.

DOCTOR MURLEY: Thank you.

Mr. Chairman, Commissioners, as you know, these activities have been underway for a year now and

although we've communicated via some papers with the Commission, we haven't actually sat down and briefed you. So, we appreciate your forbearance while we've been doing this in the past year. I think now we've got some clear recommendations and we've got some actions underway which we'll describe.

First, though, I'd like to take a few minutes and talk about the background to this study to set the stage. Then I'll turn it over to Bert Davis and Cindy who will discuss how the survey of the utilities was actually carried out and some of the highlights of that. Then we'll quickly move to the recommended actions and some actions that we have underway and Bill Russell and Frank Gillespie from my staff will talk about those.

The roots of this study really go back to the aftermath of TMI. There, you recall, there were a large number of lessons learned activities where we improved hardware and instrumentation, we improved operator qualification and training, we improved the emergency operating procedures for operators, among other things, and also off site emergency preparedness. There was a large number of generic requirements that was coming out of headquarters in the 1980 and 1981 time period, to the point where a

concern developed that maybe we were overloading the industry.

So, there was a task force headed by the Region II administrator, Jim O'Reilly, from April to July of 1981 that lead to a report of the impact that this large number of generic requirements was having on the plants and plant operations and the management of the utilities in terms of the overwhelming workload. That led to some changes that you're familiar with, the backfit rule and CRGR and special deputy executive director for operations.

The staff believes that these requirements, although they were difficult and excessive in some cases, nonetheless led to large improvements in safety. But in spite of those improvements, we still saw occasional events that were serious precursors to serious accidents. The most significant of those, I'll take a second to discuss because it had a great impact on our thinking, was the Davis-Besse event of June the 9th, 1985. It was a loss of all feedwater event where both steam generators dried out within about 13 minutes from the onset of the event through quite -- almost heroic action by the operators. They were able to get feedwater back so that the core was not uncovered.

But had they not done that, they were within probably half an hour of uncovering the core.

I remember, I was a regional administrator at the time, thinking that, my gosh, this was six years after TMI and it was billions of dollars that we had caused to be spent and all these requirements and yet we came again close to another core damage accident. We went through then that period of introspection, I would say, the staff did, looking at our approach to regulating safety. We decided that we needed to focus more effort on how the plants were being operated and maintained because that was the key to -- we thought, to preventing these kinds of things.

Many people closely involved with Davis-Besse, I was not at the time, but many people who were said that we could have predicted not that particular event but all the signs were there, that we knew that this was not a well operated or well maintained plant. SALP scores were poor, the maintenance program was poor. Also, the design of the auxiliary feedwater system we knew was weak. In fact, there had been discussions for years on getting that improved.

So, as a result of that, and that introspection that we went through in late 1985 and early '86, we undertook a better integration of all

the safety information that was available to the staff and we did this by means of the senior management meetings where all the regional administrators and all the key office directors and the key staff get together and bring together all the information we know about a plant and where we see signs of problems, we analyze those in detail and that has come to be known, as you know, as the NRC watchlist or problem plant list.

The inspection program has become more diagnostic in nature. We're out now looking for problems and particularly we're looking for areas where the management of the plant is not up to snuff. The SALP effort, we think, has become more critical. That is, the evaluations themselves have, over the years, become more critical evaluations of the safety management of the plant and not so much a mere rote discussion of statistics and things like that.

So, all in all, I'd say the program has become much more diagnostic in the sense of looking at how plants are being operated and managed.

We think we're being effective. We had a -- well, the precursor indicators, the industry's own precursor performance indicators show that since 1985 or thereabouts, the performance has improved. We

briefed the Commission on the precursor -- accident precursor information and they show a steady improvement since 1985.

One can't make this a one to one correlation, but I think the staff uniformly believes that our effort, plus INPO's effort, plus the industry's own effort together has succeeded in improving performance and it's no -- I think there's also correlation with the fact that we've had a number of the poorer performing plants shut down. We had, at one time in 1986 and '87, nine plants in this country shut down because we did not believe their performance was up to the level that we thought it should be.

Now, we get to this survey because these changes that we've implemented have had some side effects. The team inspections that we do, while they're more diagnostic and we think they're better inspections, they are also more intrusive in the plant operations. It is a bigger impact on the plant manager and his senior staff when an NRC team shows up on site. The SALP reports are more critical, but also we find that they're being used by outside agencies in ways that we had not intended. Therefore, they're gaining much, much more weight in a utility's organization and a utility's staff, and there is the

danger than that they're being used by our own staff. The effect of a SALP score, for example, can be and in some cases is being used to influence behavior at the plant.

The assessment of the safety management of plants leads us to areas that are beyond what our normal inspection and regulatory effort has been. So, all these side effects in the time period I'd say 1988 and 1989 were leading to increased criticism by the industry. It first really became focused, for me at least, was in our first Regulatory Information Conference of 1989 where, as you'll recall, this was our attempt to have a dialogue with the industry on what are the big issues we see in where we're heading and also to hear back from them in a kind of a coordinated way.

I was troubled by some of the themes that were coming back from the industry. We'd always heard criticism. We always do. But up until that point, it was largely unfocused and it was largely anecdotal. You don't know really how to deal with those.

But that summer then of 1989, I went to the EDO and suggested perhaps it was time to do another survey like the one we had done in 1981. We came to the Commission and got the Commission's

guidance and approval for this survey. I think we basically conclude that we're on the right track in terms of the regulatory activities that we're doing. But, as we'll discuss, there are areas of improvement. I think the NRC staff should, from time to time, take a look at its operations like this. I don't know if it's every five years or something like that, and get systematic, in-depth feedback so that we can deal with our operations.

Now, with that introduction then, I'll turn it to Bert and he'll describe the survey.

MR. DAVIS: Thank you, Tom.

Good morning, Mr. Chairman and Commissioners.

In my discussion of the regulatory impact survey today, I plan to discus several topics. First, how we conducted the survey; the principal themes developed from the comments received; and briefly the ten categories into which comments were grouped.

We performed the survey at 13 utilities throughout the country, three in Regions I, II and III, and two in Regions IV and V. One day was devoted to each utility. All utilities in a region were visited in the same week.

Each team of NRC people consisted of five

or six senior managers. Team members varied from week to week, with Cindy Pederson and me being the constants. Cindy attended all of the sessions. I excused myself from the sessions with senior managers in Region III.

It was valuable, I think, to vary the team members because it was important to have the NRC folks hear firsthand what the licensees had to say. I don't think you can capture the spirit that they had in the written word in the report.

At most licensees, we held discussions with five separate groups, starting with reactor operators, then plant supervisors and engineers, then corporate managers/engineers, then higher level managers and finally top executives. Each session lasted for about an hour and a half, and most groups would have continued beyond that time if the schedule had permitted. Basically, we discussed what the people wanted to discuss, asking questions only for clarification and to get examples. And, I might add, it was pretty hard to get examples of the points that were being made.

We did introduce a few topics to make sure that we covered everything that the Commission had given us guidance to cover. We pledged

confidentiality to the best of our ability to foster candid discussion. I believe the people expressed their views candidly in all of the discussions we had with all of the groups and all the utilities. I only thought that there was one group that held back. I also would say that all of the people who we talked to were appreciative of the effort.

We reported what we heard in the report. We did not eliminate what we may not have agreed with or what we believed to be in error, because I thought it was important to document what the people perceived out there. In my discussion, I will mention how many licensees made a comment. These numbers are certainly not statistically defensible, but they do give a feel for how often the comment was made. Others may have had the same view and it just didn't come up during the discussion with them.

We grouped the comments into ten categories shown on the viewgraph, and we developed two principal themes. There is a viewgraph that shows the two principal themes. Those themes are, licensees acquiesce to NRC requests to avoid poor SALP ratings, and the consequent financial and public perception problems that result, even if the requests require the expenditure of significant resources on matters that

the licensee believes are of marginal safety significance.

The second major theme was that NRC so dominates licensee resources through its existing and changing formal and informal requirements that licensee believe their plants, though not unsafe, would be easier to operate, have better reliability, and may even achieve a higher level of safety if they were freer to manage their own resources.

Let me move now to briefly discuss the ten categories.

First, requirements and perceived requirements. Many licensees believe that the NRC issues too many requirements. The proliferation of these requirements results in NRC managing rather than regulating licensees. Two licensees stated that the restraint on the issuance of NRC requirements which occurred after the last regulatory impact survey had essentially disappeared. Two licensees commented that the NRC is trying to solve too many problems without determining which problems needed to be solved. Two other licensees perceived that although NRC initiatives may cause the plant to be safer in some theoretical context, they make the plants harder to operate and maintain. The operators felt this way and

the managers of the maintenance people felt this way.

Regarding quest for excellence, many licensees agree on the need to strive for better performance in all aspects of plant operation and to maintain an ample margin above minimum safety standards. However, they believe that the NRC standards and requirements have moved beyond those needed for safety and into the pursuit of excellence and the prevention of precursor events without the NRC having decided or defined how safe is safe enough. Apparently they didn't either agree with our safety goals or understand them or perhaps they felt they were too complex or esoteric.

Generally, licensees were appreciative of the information provided to them in generic letters, bulletins and information notices since these enable them to improve their operations. I sense the real desire out there for them to want to improve their operations. But they don't want to be told they have to do these things, they want to pick and choose and decide what they should do on their own. While recognizing the legal distinction between rules and informal guidance, many consider informal guidance on documents such as generic correspondence, reports, and inspector and reviewer comments to be nearly as

binding as formal requirements. This is because licensees do not want to appear unresponsive to any staff or management level at NRC. Several licensees stated that they would prefer to have all requirements imposed by formal rulemaking.

Many licensees do not understand or do not agree the NRC process for issuing generic correspondence. Two licensees objected to the NRC practice of using 50.54(f) to impose backfit requirements by requesting licensees' schedules for completion of the items covered in the generic letters or bulletins. Several licensees did not think that NRC did backfit reviews before issuing generic requirements, and those who recognized that backfit reviews were done thought our dose estimates were low and our cost estimates were not complete and they were underestimated, particularly in the implementation of changes.

There was a general view that additional guidance, however, from the NRC is needed in some areas to assure that the regulatory position is clear and to avoid requirements being set through inspections and through license reviews. Examples provided by many licensees of areas where such guidance is needed included engineering judgment as

opposed to having to perform detailed calculations, ensuring the commercial grade part dedication is done properly and treating radiation levels that are below regulatory concern.

Let me move to the second category, NRC licensing activities. A significant number of comments related to the untimely review of plant-specific and generic submittals to the NRC. Many believe that these delays create efficiencies for both the licensees and the NRC, postpone resolution of important issues and can be costly. One licensee acknowledged that although NRC responsiveness has improved, the problem is still so significant that the licensees avoid making submittals because they don't want to bog down the system. Two licensees stated an NRC schedule for review needs to be made predictable and that the NRC priority system works well for the things NRC wants to get done, but not necessarily for what the licensee thinks is important.

Regarding technical specifications, there were a number of comments. Several licensees considered them to be so poorly written that they require an extensive volume of interpretations. Several licensees also stated that related items appear in different places in the technical

specifications. The operators were very concerned about this because it caused them to make mistakes and they didn't like to make mistakes.

Several licensees expressed concern that tech spec surveillance testing is excessive and prematurely wearing out equipment. Diesel generators were discussed, as was excessive surveillance testing that may cause transience or reactor trips. There were also comments that the tech spec requirements were either too restrictive or not restrictive enough. For example, the NRC auditing requirements prescribed in the tech specs were considered to be too elaborate. There was also a licensee who tried to train its staff to avoid transients. One of the technical specifications did not allow sufficient time for an orderly shutdown. They had to trip the plant from about 18 percent power and they didn't like that.

On the other hand, one engineer expressed concern that removing equipment from service under an LCO for preventive maintenance was inappropriate in that it increases the unavailability of safety equipment.

Let me move on now to the category of NRC inspections. There's a widely shared view among many licensees that the NRC inspection process pushes

licensees beyond existing regulatory requirements and forces them to exceed to unnecessary requests. Their perception is that inspectors improperly backfit because of how our inspectors interpret the regulations and because of the accumulative effect of one inspection after another.

Other examples of increased standards through inspections include inspectors who use open items as a means of forcing licensees to respond to their wishes. Licensees apparently consider open items to be a connotation of badness on their part and their managers feel that way too. And inspectors also intimidate licensees with the threat of poor SALP ratings if the licensee doesn't do what the inspector wants.

Regarding team inspections, there were a number of comments. Many licensees believe that team inspections are more effective than individual inspections, but when we asked them which they would rather have, they were a little uncertain whether they'd like to have a team inspection and get it all at once or spread it out over the year.

The team inspections were also considered to be a significant burden. One licensee estimated that salaries alone to support a one week NRC team

inspection cost $100,000.00 and that did not include any post-inspection activities. Two licensees said that they provide approximately three key people to support each inspection team member, which is a tremendous burden, particularly during plant outages. Another licensee said that seven team inspections were performed at its facility in an eight month period and another one said the same number were performed in an 11 month period.

In commenting on NRC's response to significant events, one licensee stated that after an event its personnel were so involved in supporting an AIT that the licensee's independent evaluation of the event was hampered. This came from middle managers at this licensee. The senior managers didn't agree with that. I personally agreed with or believed what the middle managers were telling me, I think.

Another licensee stated that an AIT was on site before the licensee could bring the plant to a stable condition and that's not the purpose of an AIT. And yet another licensee believes that NRC regional offices over react to events and send AITs because they fear how Headquarters will react. Several licensees compared the quality of INPO and NRC teams. In general, they believed INPO teams and team

inspections were better managed, better planned and better implemented, and they were more programmatic in nature as opposed to looking at hardware and specific problems.

Many licensees at various organization levels consider the resident inspector program to be one of the best things that the NRC has done. Even so, one licensee questioned why three resident inspectors were assigned to its single unit site that had an INPO 1 rating. Other comments indicate that licensees' views of resident inspector activities are dependent on the licensee's perception of the quality of the inspector and the communications that have been established between the inspector and the licensee.

Regarding all inspectors, attitudes and techniques, many licensees questioned the attitudes or techniques of them. Among the assertions were two licensees stated the NRC has too many inspectors who were zealots and NRC is not adequately controlling them. One licensee stated that some inspectors appear to be trying to make a reputation for themselves rather than to perform fair and objective assessments. One licensee observed that inspectors are unreasonable in dealing with licensees when it comes to using engineering judgment as opposed to requiring detailed

calculations, even when it's obvious that an engineering judgment is sufficient. Many licensees believe that inspectors want things done their way. They're frustrated to just come out and inspect. They like to design, they like to operate, and therefore they want to go beyond just an inspection role.

Let me move on now to performance evaluations. First SALP. One licensee stated that SALP reports are generally accurate, identify areas for improvement, and clarify what the NRC considers to be important. Another stated that it learns and improves as a result of the program and incorporates the results into corporate goals to let workers know that management is interested in running a safe facility.

However, many licensees believe that the SALP process is too subjective and that the conclusions reached are not supported by the facts. They also believe that NRC regulatory standards are increasing, thus making it unclear to the licensee and to the NRC what it would take to get a SALP 1 rating. Many believe that SALP reports should not contain numerical ratings, although the narrative portions of the reports are useful to them.

With respect to improper use of SALP,

every licensee expressed a concern that SALP is being used by the NRC to obtain better performance. There is an intense interest by many licensees to avoid poor SALP ratings because of the impact of these ratings on the public, the economic regulators, some states and the financial community. In view of the importance attached to these ratings, licensees at all levels react very quickly to NRC findings and requests to avoid appearing unresponsive to the NRC and for the various levels of the organization to avoid getting criticized by their management for not being responsive.

Let me move now to multiple oversight organizations. One senior manager stated that collectively the impact of multiple oversight organizations, including his own quality assurance organization, was almost an impossible burden. At one plant, four to five senior engineers are needed to address NRC, INPO, NUMARC and owners groups questions and concerns. Another licensee has a staff of ten to 20 per site, this is a multi-site utility, just to handle regulatory issues.

One licensee stated that the effect of multiple oversight on its training staff was staggering. During a six month period, this licensee

had an INPO simulator evaluation, an INPO training visit, an NRC training inspection, a requalification training program change, a requalification examination, and an NRC emergency operating procedure inspection. I think we would all agree with the licensee that that was staggering.

There were comments regarding duplication and conflicting initiatives among the oversight organizations. Many licensees commented that correspondence on generic issues or problems, for example, come from both INPO and NRC, as well as the NSSS and sometimes owners groups. It would help them a lot if these were coordinated so that they could come up with one response. They also commented on NRC and INPO reviews being redundant in many cases.

With respect to state involvement, several licensees stated that the NRC should take a tough stand on state intrusion into areas of NRC jurisdiction since states will not stop at a reasonable point if NRC continues its passive role. This view is prompted by concerns about duplicate regulations since the licensees believe they've got plenty of oversight as it currently exists. Another licensee felt the NRC's policy statement on state involvement may result in states that are currently

less active becoming more involved.

There were a number of comments on economic regulators. These regulators are scrutinizing operating and maintenance expenditures more closely each year and are tending to make prudency determinations based on whether expenditures are made for specific requirements. As a result, several licensees stated that allowances are more likely to be given to meet specific rules as opposed to meeting generic requirements, and that feeds back to why some of them would like to have everything imposed by rules.

Moving on to operator licensing, several licensees feel that the training accreditation program provided by INPO and the NRC's endorsement of the program should be sufficient for the licensing of operators. The NRC should monitor the licensee's training and qualification programs rather than actually being involved in the conduct of examinations.

We had a lot of discussion on the requalification examination process and not so much on the initial or replacement exams. Many licensees believe that the requal program is a definite improvement over the previous program in that the

previous program required operators to be trained to pass the exam and then trained on how to operate the plant. They feel that one training does both now.

However, many licensees stated that the process needs to be stabilized, since the lack of stability is a chronic problem that adds stress to the operators and training personnel and is a major resource burden. The guiding NUREG was continually revised and implemented on short notice without formal control and without formal issuance of the revisions. This practice had a major impact on operators and training staff since these changes might come out very soon before an examination was to have been given. It's a real stress increaser for them.

On replacement exams, in spite of everything I've just said about the requals now, there weren't a lot of comments, but licensees I think generally felt that it would be good to pattern the replacement exam after the requal program.

Moving on to enforcement and investigations, several licensees stated that regional offices are inconsistent in their application of enforcement policies. One senior manager saw a contradiction in that although everyone recognizes that plants are improving since 1985, enforcement

actions have increased over that same period. Responding to enforcement issues causes licensees to expend considerable resources to resolve issues they perceive to be of marginal importance to safety. I thin they particularly felt this on severity level 4 and severity level 5 violations.

Many licensees were particularly critical of enforcement actions taken for violations that were already identified and corrected or that were scheduled to be corrected. Such enforcement actions may be a disincentive to aggressive licensee self-assessment programs and to the alert licensee employee who identifies a problem. Some licensees did recognize the change in the NRC enforcement policy to give credit for licensee's self-identified items, but they believed that more credit should be granted to them particularly for escalated enforcement actions.

On enforcement timeliness, this was a concern to them. Late enforcement causes the same infraction to be hit in the press two different times and this was disconcerting to them. Late enforcement actions resulting from OI investigations was also disconcerting to the employees involved. They must wait in uncertainty about the disposition of their cases and they're quite concerned about that.

On reporting events, the next category, many licensees believe that the formal reporting threshold is too low. Reporting criteria cover a wide spectrum of safety significance and all take about the same time and effort. For example, one licensee questioned the need to report that a bird on the endangered species list was killed when it flew into a power line. One licensee observed that the unusual event emergency action level requires that items of low safety significance be reported and when they are the reports are interpreted by the public as another emergency at the nuclear power plant.

Many licensees also stated that reporting requirements needed to be examined since complying with them may adversely effect the ability to respond to an event. This is because of a requirement to tie up a key licensee individual in the control room to communicate with the NRC. This had never happened, they said, except one licensee indicated that in one of their simulator drills it would have caused a problem.

On communications, the next category, positive comments were made regarding visits by Commissioners, also positive with respect to the regulatory information conference, regional meetings

with all licensees, and the improved contacts with the Headquarters staff by several licensees. That's improved contact since the reorganization that was made in 1987. However, several other licensees object to being called by the Headquarters staff to explain information that they had previously discussed in full with the resident inspector or with the regional office.

With respect to regional management, several licensees stated it was difficult to communicate informally w..h the region because of their concern of an unpredictable response that they would get on the issue discussed. One licensee vice president who had worked at facilities located in two different regions noted that there was good give and take in one region, but not in the other. He said that his views were corroborated by consultants and contractors who had worked in both regions.

Communications with inspectors, the quality of communications was viewed as mixed and depended on the inspector's style, knowledge, and maturity. So, the licensee felt that if it had communications problems, it was inspector dependent, not licensee dependent. On the other hand, two licensees worked very hard to foster good

communications with the inspectors because they believed that regulatory issues are kept in better perspective by the NRC if the senior resident and other inspectors are kept fully informed about the problems.

One licensee recognized that inspectors are knowledgeable and that they gained important information by visiting different sites that they can share with the licensee. The licensees appreciated this, provided they weren't forced to adopt the things that the inspectors told them about.

Several licensees believe that they carry an inordinate burden to communicate with the NRC staff because the staff is unable or unwilling to deal with its own communication problems. One licensee stated that the NRC communications with the public are often done by people who lack the needed communication skills and this was of concern to them because if the NRC goes out and does a poor job in public meetings, it's not only an adverse reflection on the NRC, but it's also an adverse reflection on the licensee in that area as well as on nuclear power.

Finally, the last area was qualification of NRC personnel. Several managers stated that NRC is much more professional, responsive and technically

competent than other federal and state agencies. Senior management from one licensee said that industry needs a strong, competent NRC for nuclear plant safety and for public acceptance of nuclear energy. The NRC organization and its people were praised for the ability to address and resolve difficult issues in licensing and operations and they felt as work on SSFIs and design basis reconstitution progressed they would need that to continue, a good responsive NRC.

Many licensees at various organization levels believe that NRC people are competent but they lack the knowledge and experience needed to perform inspections in some areas. Primarily the area they mentioned was our ability to analyze management systems and evaluate management. Another manager stated that resident inspector staff lack important technical knowledge, evaluation techniques and communication skills. Many of them believe that although we're pretty good engineers, we don't understand the plants very well and we're not as knowledgeable about the plants as their licensed operators are. Some licensees felt that we should be that knowledgeable.

There were a number of views that NRC inspectors require a great deal of education and that

that education turns out to be a burden on the licensees because the inspectors are not willing to dig into the drawings and the specifications and so forth to educate themselves.

That's a brief discussion of the ten categories. If you've seen the report, there are many, many examples. If you have any questions, Cindy is here to help answer them. That concludes what I have to say.

COMMISSIONER REMICK: Bert, I have one question. You indicated that licensees spoke positively about Commissioner visits. I've always felt welcome and made to feel welcome when I went. But I know that it's an expenditure of a large number of high level management resources when I do go. Did you get any comments at all from that standpoint that a Commissioner visit requires too many of their resources?

MR. DAVIS: We asked that and the answer was no. It was not a major burden on them and they thought that the payback was much more than any affect that it had on them.

COMMISSIONER ROGERS: Bert, did you find any evidence of orchestration of responses? I think the feeling was that, getting into this, that it was a

kind of industry-wide complaint building that led us to decide that we ought to do such a survey. Did you find any evidence that the responses that you were getting were canned in some ways --

MR. DAVIS: Not a lot.

COMMISSIONER ROGERS: -- orchestrated more broadly?

MR. DAVIS: I really felt that in most cases the people were being very sincere and they were telling us what they thought. There was one group at one licensee where the operations manager came in with the operators. He dominated the discussion session and he had already planned what he was going to say. That was orchestrated.

Do you have any other --

MS. PEDERSON: Also, one utility who went to a great extent to prepare what they've documented, approximately an inch thick, their entire presentation. However, I think most of them, it was not that well prepared as far as formally prepared.

COMMISSIONER ROGERS: Well, I wasn't thinking so much of that because it seems to me that that still could be very candid. The question of whether you're hearing exactly the same words and exactly the same points at totally different plants.

DOCTOR MURLEY: No. Let me comment on that, Commissioner. I was somewhat concerned about this before we started. So, Jim Sniezek and I went down to -- after the Commission had approved going ahead with this survey, Jim and I went down to NUMARC and talked with them and told them generally what we were doing, and asked them not to orchestrate a response because it would defeat the purpose of it. They immediately recognized that that would be the case. So, they talked with their utility members and agreed to be spontaneous. I felt on the five utilities that I went to that it was, that there had not been an orchestration of views.

MR. DAVIS: One licensee did indicate that some contractor had called them and offered to come and help -- but they didn't take them up on it.

COMMISSIONER ROGERS: Well, we are a free enterprise system. Everybody looks for opportunities.

MR. TAYLOR: I believe there was a sufficient spread of types of comments that if it occurred, it was very minimal.

COMMISSIONER REMICK: What is the answer to the three residents being at a single unit utility that apparently had high INPO rating? What's the answer to that.

MR. TAYLOR: I don't know the specifics on that one. We'll get back to you.

COMMISSIONER ROGERS: Probably overlapping tours or something.

COMMISSIONER CURTISS: I have, before we go on, just a couple of questions. As you look at the findings that this report uncovered and the comments that the licensees had and compare and contrast them to the findings of the O'Reilly report back in 1981, recognizing that it was a different point in time and different considerations perhaps led to the O'Reilly conclusions, are we hearing a lot of the same comments and concerns or is this just on the spectrum of new comments versus same old complaints? How would you rank this survey in the context of the O'Reilly report?

MR. DAVIS: There were a number of similarities between the findings in both reports. I think the imposition of a lot of new requirements was discussed by O'Reilly, inspectors not being controlled.

What were some of the other ones, do you remember?

MS. PEDERSON: I think the main one Bert already hit on was the requirements and the numbers of

them. We did hear some indication during the survey that some people felt there was initial control placed on the Agency after the 1981 survey, but that has somewhat disappeared. I think that was really the main thrust.

DOCTOR MURLEY: I'd like to add a comment and then perhaps Jim.

There are, to my mind, two differences between the situation now in this survey and the situation in 1981 in that survey. Even though some of the individual comments were the same, in 1981 the problem was viewed strictly, almost totally as a Headquarters problem out of control. The Headquarters staff was out of control at issuing new requirements. This time I think, although there was still some of that, the theme was that the regional inspections are "out of control." So, to me there was that difference.

The second thing is I heard from at least a couple utilities and I've heard them in other conversations that in 1981 the industry felt that there was almost a crisis in terms of them being able to stay on top of or even up with the massive requirements that were coming out. Last year, they did not feel it was a crisis. I didn't hear anyone

say that. Did you, Bert? But they felt that it was something that needed to be addressed.

My own view is that the industry is much, much better prepared now. Their staffs are much larger, they're stronger, they're more capable of dealing with the regulatory situation. That's partly the explanation.

But if I had to -- I did kind of just summarize my thoughts and views. Those were the two differences I noticed the most.

MR. DAVIS: We did have one senior manager, Tom, who made a statement similar to the major conclusion that was reached in the 1981 report and that is that the amount of requirements was a safety problem of unknown dimension. It was along those lines. That was pretty much the theme that Jim O'Reilly had come up with in the 1981 survey.

MR. TAYLOR: That was maybe one manager. I think that was a predominant theme out of that early survey. I think that we in the Agency who were here and working then looked at what had happened in the post-TMI period when many, many requirements were being imposed through the TMI action plan. It became quite clear that that was the predominant message. The inspection program at that time and the resident

inspection program was new and in its earliest stages. The inspection program was being adequately revised. So, I think there are differences. It was a much-- that was the beginning of the resident program. It really got going after TMI.

So, although it was some of that, I agree with Doctor Murley that I don't think we got out of this survey the same crisis sense. There was a broad opinion of the proliferation of requirements back in those early 1980 days.

COMMISSIONER CURTISS: One other question. I realize, Bert, that you just recited sort of an objective summary of what you heard without any conscious effort to reflect upon the correctness of the observations. I guess one of the questions that I've always had as I've gone around to the sites and comments have been raised, I find on occasion that the comment or the concern that is raised by a licensee will be in large part because of the lack of the licensee's knowledge or understanding. You touched on a couple of them. The fact that generic letters go through the CRGR process, for instance, you alluded to, wasn't very well understood.

If you look at the range of comments that you got in this survey and recognizing that you

haven't yet put a spin on them, would you care to comment on maybe where the emphasis was, comments that were, when you get down to it, a legitimate and objective and well considered critiques of the way we do business versus comments that reflected perhaps less of an understanding about the way the process in a particular area worked or what the framework is in a particular area?

MR. DAVIS: I guess I believe that the majority of the comments that were made were probably good comments, in spite of the fact that we couldn't in many cases get good examples. If I were to go into the appendix of the report, I think, and go through and say, "Yes, this is right," or, "no, this isn't," I think the majority of them, I would say, were probably right. Therefore, the corrective actions that you'll hear about later are appropriate to take.

COMMISSIONER ROGERS: One question I have. You focused your remarks, Bert, on the 13 plant study. Now, have you got anything to say about the more general survey that was done, the Generic Letter 90-01 that looked at the licensee management involvement in inspections and audits? It seems to me that some very interesting observations could be made on the data that came out of that little survey. I wonder if you

have any -- would add anything to do that.

DOCTOR MURLEY: Yes. That was conducted primarily by the Headquarters staff. There were two other surveys besides the one that Bert has mentioned. As you said, Commissioner, there was a written survey of all licensees asking for their views on how much time the senior management -- well, all the management of the utility and the plant spent on responding to NRC and other outside auditors. That survey did come back. It was, I thought, quite interesting. It showed that perhaps 25 percent of their time, from the plant manager to senior managers on site, was spent responding to outside influences. The NRC portion of that, as I recall, was only about perhaps ten percent, not the full 25 percent.

COMMISSIONER ROGERS: Well, yes, of the total time, but of the inspections it was less than half senior management time. Of the time devoted to inspections, it was less than half --

DOCTOR MURLEY: That's correct.

COMMISSIONER ROGERS: -- went to NRC inspections.

DOCTOR MURLEY: Right.

COMMISSIONER ROGERS: As a matter of fact, supervisors, it was 70 percent was non-NRC involved.

So, it seems to me that this very interesting concern, legitimate concern that we have if we're concerned about the impact of inspections, excessive numbers of inspections or excessive time spent on these things, then I think we need to look at all of them, not just NRC, and perhaps try to see if something can be done to alleviate that total burden because less than half of the time spent on top management or middle management on these inspections is related to NRC activities.

DOCTOR MURLEY: Yes. That survey, as well as the survey of the staff that the Commission asked us, I think we've taken all of those into consideration here in our thoughts and in our recommendations on where we go. Should I move into that area now of --

COMMISSIONER CURTISS: Just one other quick question, Tom, on the survey that you did and that Commissioner Rogers has referred to. As you break down in Table 1 the total impact of the various inspections, EPA, OSHA, the insurers and so forth, and then in more detail -- and I think our interesting attachments talk about what, for example, the average NRC team inspection occurs 4.6 times per year, 6.7 people lasts about ten days -- is there anything in

the statistics that came out of that that from an inspection perspective surprised you or that indicated that things were significantly different than you thought they were as you during the course of the year, for example, evaluate and assign inspection resources?

DOCTOR MURLEY: I personally expected an outcome like this.

Let me ask Frank Gillespie if you have any thoughts or insights from this.

MR. GILLESPIE: I think the insight we got from the combination of the three surveys was not necessarily that the objection was to the 4.6, but the objection seemed to come at particular sites when, for whatever reasons, we'd pile up three of our inspections a long with an INPO one. Inspections, when I cover that, we focus now very heavily on how we pace these inspections to a SALP period and how do we get early feedback if we're going to collide with some other planned activity from a third party, because we do recognize that the impact from the third party, when it coincides with ours, is a very important consideration.

So, it's not the number as much, I think, as the scheduling that we've tried to focus on here.

COMMISSIONER CURTISS: Okay.

COMMISSIONER REMICK: I'd like to pursue two points before we leave this subject.

Tom, I agree in general with your characterization of the difference between the earlier survey and this one except for where you said the earlier one was primarily Headquarters out of control, second region out of control. The area where I --

DOCTOR MURLEY: That may have been --

COMMISSIONER REMICK: Yes.

DOCTOR MURLEY: -- slightly an overstatement.

COMMISSIONER REMICK: The point I'd like to make, and the area where I would disagree is in the team inspections. In my going around to the regions and talking to regional staff, as well as some input from licensees, it's a question of the team inspections which are Headquarters types of inspections. I get the sense that once we establish teams, they have to have something to do. So, there's a tendency for them to call the region and say, "We have a team available. Where would you like them to go in the next two weeks? That was one area which came out in the survey where we are really utilizing licensee resources in team inspections.

So, when we come to the subject of talking about improvements, where we talk about controlling inspections, I think we also have to consider very carefully the need for some of these team inspections. Once we get them going, do they perpetuate themselves? Do we have people that are dedicated to this and therefore they have to find something to do?

One other comment, going back to you, Bert. You mentioned something like maybe licensees don't understand or agree with our safety goals and I can't help out ask the question do we, meaning the Agency, understand and agree with our safety goals? In other words, it isn't just a case, I think, of licensees perhaps not understanding implications of that, but maybe we don't fully understand what that means. Do we put them on a shelf?

MR. TAYLOR: We've corresponded in the past six months with the Commission on that. We're trying to cleave closer to the guidance which the Commission agreed to for safety goals, for the CRGR and so forth that were, I think, the measure --

COMMISSIONER REMICK: I'd appreciate that if you'd address it.

MR. TAYLOR: I don't think we're there, but I think we're trying to take the measure more than

we have.

COMMISSIONER ROGERS: Well, it seemed to me from just reviewing these comments and thinking about them just only a little bit that maybe they were asking for something else in how safe is safe enough, rather than --

COMMISSIONER REMICK: I think it's something very simple.

COMMISSIONER ROGERS: Something simple, less global, more practical that they could turn to in making decisions. And that our clarifying our position with respect to the safety goals, of course, should be something that we do complete, but that that's not exactly what they're looking for.

COMMISSIONER REMICK: I would agree with you, Ken.

MR. TAYLOR: I believe that the fact that as we've continued the efforts to identify those utilities or plants that are having operational difficulties for whatever the reasons and causes, I'm reminded that we have seen the problem plant list decrease. I look at that as a positive sign and also an attempt by the management to not over react to some what I'll call normal problems, but to try to -- and plants have improved. I think that's the tie. I

believe as plants improve their performance and have been removed, that's a sign that we're acknowledging that it's okay in whatever way we're able to do that.

CHAIRMAN CARR: All right. Let's proceed.

DOCTOR MURLEY: We'll address some of these issues as we get into improvements as well.

The staff survey that was done of our own staff in SECY-90-250 I would say generally confirmed the broad findings with a few different examples and a few changes. But by and large, it was, I would say, the same lessons.

Some activities to address these areas were ongoing independent of the survey. That is, we'd had SALP program revisions underway. We had backfit training underway. We had team leader training. For example, the maintenance team leaders were trained. All this was being done. So, we have some of the improvements dealing with the problems that we've found on the survey had already been underway.

But we felt that more was needed. So, we've collected -- more was needed in three areas. The quantity of NRC requirements is the first one. The second one is the amount of NRC on-site activities. And the third area, broad area, are the interactions between the NRC staff and the licensee

personnel.

There's a viewgraph entitled number 1, cumulative effect of NRC generic requirements. Here, we're not talking -- and we use loosely "generic requirements," the phrase. We're not talking of rules, license amendments or orders. A better phrase would be probably "NRC requested safety enhancements as developed in bulletins or generic letters," or something like that.

Bill Russell and his staff are developing some innovative ideas on how to deal with this and I'll let Bill discuss this one.

MR. RUSSELL: With respect to the cumulative effect of generic requirements, I'd like to break this into two broad areas: those things which relate to identification, evaluation, communication and promulgation of a new requirement, the front end of the process; and then those things which relate to the back end of the process, that is the licensee's implementation of these requirements which pass the backfit test.

In the area of identification of requirements, we are now, and have been for some time, prioritizing generic issues. We promulgate semi-annually NUREG-0933. We are also coordinating from

the standpoint of exchange of information with industry, with biweekly correspondence with the Institute of Nuclear Power Operation. And as Mr. Taylor mentioned, we are incorporating into the CRGR process and the staff review of potential new requirements the safety goal as we relate to our evaluation and review.

At the end of that process, we feel it's important to articulate concisely in the new requirement when it's issued the reason. Is this a cost effective backfit? Is it required to achieve adequate protection, or is it required to comply with NRC rules, regulations that already exist? We are clearly articulating that in communications that we issue at this time.

Doctor Murley mentioned the backfitting workshops. We actually have an AEOD study that was ongoing that looked into the backfitting process. There is a NUREG-1409 on backfitting guidelines, and the workshops have two audiences. One is internal to staff to make sure the staff understand the process, and the second audience is external, to get the information out to the industry.

The third area which relates to the quality of regulatory analyses, Research has

activities underway to revise and update the value impact handbooks.

All of those address improving the quality of the staff's evaluation leading up to the issuance of a new requirement.

The area that has not been handled well, and we've had earlier attempts at handling it, is the back end of the process. That is when it gets down to a specific licensee. We had an integrated safety assessment program which was a follow-on to the SEP which develops new techniques for looking at numerous requirements in a generic way. It had some elements to it which caused it to not be endorsed by a number of utilities. It was a voluntary program, required a plant specific safety analysis, required factoring operating experience in and also it required addressing some of the specific technical issues that were lessons learned from SEP.

We had a second effort at trying to control these impacts, the living schedules or the integrated schedule activities. One of the shortcomings with that was that it was a requirement to incorporate licensee initiatives into that and it got some type of a regulatory stamp on it once you were through with it. So, licensees did not, by and

large, endorse that.

The staff has conceptually developed what we call the regulatory requirements implementation schedules. This would be a voluntary program with licensees. Conceptually, it would be a periodic review on the part of a licensee of those things required by NRC which do not relate to meeting an adequate protection standard or compliance with existing rules and regulations, broadly 51.09 backfits. They would be reviewed and prioritized based upon their safety value and consideration of impacts, scheduling other things going on, lead time, et cetera.

Licensees would then propose to the staff, and I'll use the example of a one year cycle, but propose approximately one year before the outage which items would be implemented during that next outage. The staff would then have a period of time for review and absent a negative finding by the staff within say 60 to 90 days, that schedule by the licensee would become frozen. It would constitute agreement that those items would be the items to be implemented during the next outage and no others would be added. This would provide stability in planning during the period of time when engineering and other activities

of the licensee are focusing on the next outage. The process would then be updated, depending upon the scheduled refueling cycle, every 12 to 18 months.

That's essentially the concept. We are looking at a pilot program because clearly the key issue is going to be how you prioritize based upon safety and significance and how we develop guidance back for the staff to conduct those reviews. We would like to keep it in a negative consent context with the licensees proposing and, absent staff objection, that would become the schedule.

We're looking at a pilot program that would involve licensees from each of the regions to work over a period of 18 months to two years to develop that guidance by actually using it. That is, develop it, try it on a pilot basis, and then formalize that guidance for project managers such that the program could be implemented more broadly. We feel that this will control the impacts of implementation of new requirements and get those implemented earliest which have the greatest potential safety benefit for that particular licensee.

COMMISSIONER CURTISS: Bill, before you go on, just a couple of mechanical questions on what you propose in here. You indicated that the previous

programs ISAP and integrated schedule hit the shoals because in the case of ISAP a PRA was required, in the case of integrated schedules it was part of the license -- or was viewed to be part of the operating license. Is this going to require either of those two?

MR. RUSSELL: No. Since all licensees are doing PRAs essentially to support the IPE process, with one exception, they would have the tools to do the integration, to judge them. In fact, I've spoken to one licensee to determine whether he felt that this proposal that the staff was looking at would be responsive to the broad concerns that had been described in the regulatory impact survey. The feeling was that it would go a long way to doing that. It would provide stability for planning, would not impact engineering resources at a time when they're critical because you would have reached agreement on those things to be done in the next outage.

There is a potential that some items through this process, if you go through it, the items that are on the bottom of the list that are not particularly safety significant on that facility may not be done and that some items may have very extended schedules on some facilities because we'd be

prioritizing on a plant-specific basis, not necessarily to complete all of a particular item to get it off of our books.

COMMISSIONER CURTISS: Now, conceivably, that would be true for so-called backfits that we impose through regulation. If, as a generic matter, a regulation makes it through the CRGR process and the Commission says, "Go out and require hardened vents for all MARK-1 containments," for instance, this plant-specific evaluation under this program, I gather, could lead to the conclusion that requirements imposed with the regulations might not be of sufficiently high priority toward doing and could therefore be dropped?

MR. RUSSELL: No. As I commented earlier, this applies to those things which are not required for compliance with the regulations or for an adequate protection standard. In the instances you've described, that may provide a basis for a licensee to request an exemption to not have to implement that particular regulation. But we would not see this as a part of that process.

COMMISSIONER CURTISS: Okay.

DOCTOR MURLEY: Yes. The hardened vent, for example, is really a safety enhancement and it's

not needed for adequate protection. It would be one of the items we would propose be included in this prioritization kind of scheme. It's conceivable that as we get into this it may fall down further on the list than some other important items.

CHAIRMAN CARR: I think that was the intent of Commissioner Curtiss' question. It may get so low on the priority list, it may never get done, even though it is a requirement.

DOCTOR MURLEY: That's one area we have to look at. I don't think we have a good answer now as to whether some of these might get delayed so long because they're tied to outages, which only come every year and a half. Could it be delayed so much that you have to ask yourself whether it's worth doing anymore? We haven't really got an answer to that question.

COMMISSIONER ROGERS: Well, it's the classic problem that you always have when you prioritize.

DOCTOR MURLEY: Yes.

COMMISSIONER ROGERS: There's always something at the bottom. How do you ever get at those things? The usual way is that you add another category. You pick a certain number of those and you just do them every now and then, regardless of the

fact that they're low priority. Otherwise you'll never get to them. You'll always have this-- something at the bottom that never gets tended to. Although everybody agrees it should be done sometime, it just never gets done. It's just the classical problem of prioritization and there are standard ways of doing that.

The 18 to 24 month pilot program, when do you expect that to begin, Bill?

MR. RUSSELL: We'll get to the point, but I would expect it after we've received public comment back on the paper. I'm getting into Tom's conclusion somewhat. So, if we can defer that until my boss has given you sort of a punchline from the presentation.

COMMISSIONER ROGERS: Okay. Fine. I'm happy with that. But this program, is this focusing really on just those items which would be done during an outage? Is that where you're starting? Do you expect it to --

MR. RUSSELL: There are things that can be done between outages. It turns out that the impacts of those are quite small. We had the Gen[illegible] Communications Branch look at items which we imposed that would be subject to this kind o[illegible] prioritization. We looked at whether they could be

implemented on-line or during outages and we arbitrarily assumed if it was an outage they would be done at one time. We used May and then we spread the others uniformly.

The impacts during outages by far dominated that which could be done and we use the results from our regulatory analyses in supporting of these as to what the impacts were. The impacts, when converted to dollars, were on the order of $100,000.00 per month during operation and they were in the few millions during outages. Again, this is regulatory dollars. We need to improve that process as well, to make sure that we are measuring them the same way. But even by our own analysis, we showed a significant burden during outages and less so during operation.

CHAIRMAN CARR: What's really going to happen here is you're going to -- the things that require an appreciable amount of time are going to coincide with those outages that the utility already requires an appreciable amount of time, like a steam generator replacement or something that requires a whole focus and you're going to stuff more into that because it's a longer one. So, it's not going to be easy.

MR. RUSSELL: We envision that there may

be items that the utility wishes to do or needs to do that would have significant impact that would make the list shorter during a particular outage and that is part of the reason for developing the criteria. If a major item such as a steam generator replacement was planned, then the amount of activity you could conduct inside containment is going to be very limited. That may be the basis for reducing or scheduling other items until later.

COMMISSIONER CURTISS: The focus on the outage-related aspect of this seems to suggest that this program, this IRRIS program I guess, is primarily hardware related. Is that a correct conclusion?

MR. RUSSELL: Not necessarily. When one implements changes to emergency operating procedures, for example, if you were going to go from one revision to the next revision, the ideal time to do that is to train the people and start up from an outage with that, so you don't have different crews with different levels of understanding about the procedures that are in use. So, procedure, programmatic changes could occur. If it were a change in your work procedure or work controls that we would require, you'd clearly want to do that when you're on-line and not in the middle of an outage to change your mechanism for work

control.

Each one would have to be looked at, but the emphasis -- the area that we see needs controlled outages.

COMMISSIONER CURTISS: Take one that's not so logically related to an outage like Part 20, for instance. I guess you could conceivably do it any time and which would fall under this program because it's not an adequate protection requirement the way we've approached that. I guess what you're saying is that this program wouldn't result in the scheduling of Part 20 changes at a given plant if they fall within the outage, within the scope of things done during an outage?

MR. RUSSELL: I'm not able to address the Part 20 example explicitly. But for other examples, for instance what the staff has ongoing now in the area of motor operated valves, with the generic letters that we have, with the programs that are being developed, there may be things that can be done to complete a portion of that program during an outage. There may be other things that are done by way of analysis during the course of a year. Those schedules for how much is done during that review could clearly be incorporated into this program. Some things may be

done during the year, others will be deferred to an outage.

CHAIRMAN CARR: Isn't this really a formalization of what's been going on informally anyway?

MR. RUSSELL: I hope so, yes, sir.

CHAIRMAN CARR: I would assume that we're talking to the utilities about what they're doing during their outages and what --

DOCTOR MURLEY: Yes. But this goes a little further than that in the sense that this allows us to take into consideration things that they may find more important and even more safety significant that are their own initiatives. They I think uniformly told us that their own initiatives take back seat to NRC initiatives. One that comes to mind, and I can't remember who told us this, but the recording charts in a control room needed to be really replaced because they were so unreliable, they were out of service a lot. Yet they never were able to get around to it because they were always working on something that NRC required that probably is not as safety significant. When we put those on the same kind of chart, we may agree with them that ours could go further on down the list.

CHAIRMAN CARR: Then I'm surprised they haven't been bringing it up before.

DOCTOR MURLEY: Well, they acquiesce, as Bert said.

MR. RUSSELL: We also have cases where the staff has accepted longer schedules. You've seen that in our recent paper on some of the TMI items where schedules have slipped because of other things going on or licensee's ability to implement the changes.

COMMISSIONER REMICK: Before going on to the next improvement, I've always been disappointed that the ISAP and living schedule weren't more successful. So, I really hope that the IRRIS program is successful.

One other comment I wanted to make, you were talking about revising the value impact handbook. I think that the Office of Research will be doing that. I hope they're cognizant of a government-wide effort looking at value impact and use of risk assessment.

I brought along with me today a very recent OMB report. I'd just like to, if you'd bear with me one minute, read three observations that I think we should carefully consider when we do our value impact.

It says, "The continued reliance on conservative or worst case assumption distorts risk assessment, yielding estimates that may overstate likely risks by several orders of magnitude."

Another observation, "Conservative biases embedded in risk assessment impart a substantial margin of safety. The choice of an appropriate margin of safety should remain the province of responsible risk management officials and should not be preempted through biased risk assessments."

Third, "Conservatism in risk assessment distorts the regulatory priorities of the federal government, directing societal resources to reduce what are often trivial risks while failing to address more substantial threats to life and health."

I think it captures some of the things that Bert talked about here and what Ken and I were talking about. It isn't so much understanding the safety goals, it's some of the things we emphasize to cause resources to be utilized and therefore resources aren't available for the more important safety significant type of things.

So, I would just ask that Office of Research, if they're not already familiar, be familiar with what has been done and is being done by the

Office of Science and Technology Policy in this area government-wide. They're particularly critical of EPA on inconsistencies.

COMMISSIONER CURTISS: I just have three other quick questions on this. I gather the first step in this process is for us to go through and list all the requirements other than the adequate protection requirements that are applicable to a given facility. Do we have that list today for plants or is that something that we would have to prepare? Could we go to, say, Plant X is Region III and pull out a list of things that are all considered generic letters, information notices, regulations, resident inspector preferences, that kind of thing, and put together a list of things that we are expecting the licensee to do?

MR. RUSSELL: We have pieces of the list, clearly those things which are unimplemented, and we're tracking them through the safety issues management system. We have also the NRR process, the WIF program which includes those things which are requests from licensees that are not yet implemented where you follow implementation of generic letters, bulletins, things like that. So, they are in different places and there may be some that a licensee would propose to

be considered that may be a fallout of an inspection activity which may fall into that category.

So, we don't have a list consolidated at this point in time, but we believe we can identify such a list --

COMMISSIONER CURTISS: That's the first thing we'd need to do.

MR. RUSSELL: -- and that would be the first step in the activity.

COMMISSIONER CURTISS: Then we send it off to the licensee a year ahead of time and they -- I'm sorry, we send it off to the licensee and they take all the things that they'd like to do and they plug it in and they give it to us a year prior to the refueling outage?

MR. RUSSELL: If the licensee proposed to identify some things that they wished to do that were higher priority and that constituted the basis for not doing something that was on the regulatory requirements list, we would accept that. But in general, it would be an activity to prioritize those things which NRC has required only.

COMMISSIONER CURTISS: And then during a certain period of time after we get that, unless we object, sort of a negative consent posture, then the

requirements to be addressed at the upcoming refueling outage would be set?

MR. RUSSELL: That's correct.

CHAIRMAN CARR: We keep throwing the word "requirements" around in this. You've got to remember these aren't requirements per se. Some of them are requests for safety enhancements.

COMMISSIONER CURTISS: Anything other than adequate protection requirements, I guess, is what I'm using that to refer to.

Just a critical path question. The scope of the outage for some of these licensees is set quite a ways ahead of time. Are we on the critical path for setting the scope under this program, or is it going to be far enough ahead of time that we'll be off of that?

MR. RUSSELL: We think generically the licensee should have probably on the order of two outages to implement the requirement. If someone chose not to volunteer to participate in this kind of a program, they would generally have a two outage window to implement the regulatory requirement. The prioritization, the consideration of your activities with staff activities would only accrue to a licensee that participated in the IRRIS program.

COMMISSIONER CURTISS: Okay. One final question. Do you have a sense yet of what the resource impact of the program will be?

DOCTOR MURLEY: We've talked about it. It could be a fairly substantial impact to start up for the staff because, for example, we'd have to give the staff guidance on priorities. We couldn't have one project manager saying, "This is important," and another one saying it's not important. So, the management and the staff is going to have to develop some guidelines on how to implement this program.

CHAIRMAN CARR: But it's not inconceivable it could be more important at one plant than another one.

DOCTOR MURLEY: That's possible. That's possible, yes.

So, that's why, Commissioner, we'd like to do the pilot programs first, so we don't undertake something without fully knowing the impact on us.

COMMISSIONER CURTISS: I think it's a-- I'm pleased to see that you're recommending something like that. I guess the comment that I've heard most frequently as I've gone from site to site is it's difficult to drink from the regulatory fire hose. You need to have a sense of what's important and what's

not. Not just in terms of what we require or request, but in terms of what the licensee also thinks is important, the strip recorder chart example, Tom, that you gave. So, the concept here that you've developed, it seems to me, is a most interesting one and I hope it works.

Having said that, I hope we can approach it in a way that addresses the apparent shortcomings of the two previous efforts, ISAP, which I too was disappointed hasn't been pursued, and the integrated schedule program. For those licensees that repeatedly expressed concerns like this, and there are a number of them, that they'll know that they have this program available to them to pursue.

DOCTOR MURLEY: Yes.

MR. GILLESPIE: Commissioner, let me clarify one. We do have a list for every plant and project manager report. It's all generic letters, bulletins and rule requested actions and their implementation status, as well as a reference to any correspondence that's come in on when they said they'd have it implemented.

COMMISSIONER CURTISS: Okay.

MR. GILLESPIE: So, we today have the list, but it doesn't include compliance items that are

developed in the region. It's strictly the regulatory actions we requested generically.

COMMISSIONER CURTISS: Okay.

DOCTOR MURLEY: Let me move on then to a second area where we felt improvement was needed. This is scheduling and control of inspections. It gets to, at least partly, the comment that Commissioner Remick had on team inspections.

The view that we got uniformly, I believe, and Bert can help me, was that the licensees feel that team inspections are better quality inspections than individuals coming out one at a time. They were most concerned about the impact that the team was having on utilities management and this is perhaps the most straightforward one to deal with. We have taken steps in the past year to deal with the problem that you mentioned, of Headquarter's teams looking for work out in the regions. I don't think that is going on now. Still, if it is, we'll take steps to fix it again.

Frank Gillespie's going to talk about this issue.

MR. GILLESPIE: To give you a background, following the reorganization and folding-in of I&E into NRR, we looked at the program and did somewhat of a restructuring, and the restructuring along the

philosophical of those plants which presented the biggest safety problems should have the most inspection. And that was kind of our in-going assumption.

Since then, our most current list of inspection hours per plant shows that we're spending in a range of from 2,500 hours in a 12 month period at our least inspected plant or unit to about 10,000 hours at our most inspected unit, which is a significant change from three years ago. So, we now do have a spectrum and it's not a step function. If you sort these by least to most, you'll see a fairly smooth curve, so it's not dominated by the high end or the low end. There is a definite transition. So, I think the regions and Headquarters working together have made some significant progress as far as the distribution of effort relative to safety.

This last year we made a major change in the programmatic operating plans the regions have that NRR concurs in, which has these same elements as a higher level objective for the regions to reach in our program. So, we are now going with some success, which means when you do go up to some facilities and they say that we're getting all this inspection, they may in fact be very, very right. Introspectively,

they should ask why are we getting all this inspection, because there are some facilities which basically have only the resident at the facility.

In doing this restructuring we came up with the master inspection program, which was merely a tool. It's a computer database, but it has the regions and Headquarters all working together to keep track of in the end what is a site-specific activity schedule for each site of all NRC activities in addition to NRC activities the regions do put on them, when they expect to have major INPO visits we happen to know about, major refueling outages, Commissioner visits. So we're starting to get a very, very good handle collectively on what our activities are and how we're planning them.

The next extension to this internally is a speed limit, I'll call it, and this is being developed right now between the EDO's office and NRR and the regions, starting with the EDO's field policy manual, words to the effect that we would foresee no more than four major team inspections at any facility during a SALP cycle unless the deputy regional administrator and our associate director for projects confer on it and decide that, yes, this is a plant that falls into that higher end, that bigger safety problem.

CHAIRMAN CARR: What do you define as a major inspection?

MR. GILLESPIE: We haven't really put a definition on it. We've generally viewed it as something that has more than three people, but we see the program changing in that we're doing more multi-discipline inspections as we have more junior people coming into the program. In some regions, we have team leaders being assigned and multi-discipline inspections being done in lieu of individual separate inspections, and team leader training is one thing I'll cover in another section to help provide more supervision for those types of inspections with the senior person.

CHAIRMAN CARR: But there's no doubt a maintenance inspection or a diagnostic is a major inspection.

MR. GILLESPIE: Oh, that's major. That fits the four. That fits the four, yes.

CHAIRMAN CARR: Well, my personal opinion, four is too many. Seems to me there's a great degree of overlap in the major inspections, and in my opinion you can do -- I don't know what you want to call it, but you can do one of those major inspections that's nearly across the board. And you really do do that.

From my viewpoint, anyway, the diagnostic and the maintenance have got a lot of overlap, and I think the thoroughness of those major inspections and the follow-up thereafter get most of the work done.

So, I just throw that out, that four inspections in a SALP cycle, having been on the inspected end and been an inspector, you can just go from one to another. I mean, you know, and it keeps you from getting your work done. I sympathize with those people who have a good number of inspections. And this ignores those little AITs you may drop in on them because of an incident. It ignores quite a few things that we -- as you say, if it's less than three guys, we don't really count it. We better give it some consideration.

MR. GILLESPIE: Well, the specifics in how to implement this, we have a list of team inspections which, by definition within the program had been developed as teams, which are the ones we're going to focus on the four. They include such things as SSOMIs, SSFIs, the maintenance team inspections, EOPs. All of those would be considered major. You are right. It does --

CHAIRMAN CARR: That's one every four months or five.

DOCTOR MURLEY: This is a ceiling, not a floor.

MR. GILLESPIE: It's a ceiling.

DOCTOR MURLEY: So, it may not get to four, but we are dealing with the problem where --

CHAIRMAN CARR: Say it's three. It's one every five months. I mean, by the time you get the report written, the next inspection is going on.

DOCTOR MURLEY: But in terms of impact on the plant, though, generally it's only the weeks that the team is there, and that's what we wanted to deal with first.

CHAIRMAN CARR: But that extends over as much as four weeks.

DOCTOR MURLEY: It can be four weeks, yes. And we were seeing cases of six to 18 inspections in a year and that's what we wanted to deal with right away. I think we'll clearly take your guidance. Four may be too many, but we wanted to put a ceiling on it.

CHAIRMAN CARR: Well, I think the thoroughness and the overlap, I guess, is what I think are important to take a look at.

MR. GILLESPIE: And I think we're doing that. I need to emphasize, four, as Tom said, is a ceiling. We don't have enough resources to do four at

every plant in the country. It's truly a ceiling. If someone gets four, someone else only gets one. So averages can be deceiving.

COMMISSIONER CURTISS: Your average today for, let's say, an 18 month SALP cycle, if I understand the materials in the SECY paper 205, was about seven per SALP cycle, an 18 month cycle, 4.6 a year, seven major team inspections.

DOCTOR MURLEY: That's the historical record.

MR. GILLESPIE: That's the historic record.

CHAIRMAN CARR: That's average.

COMMISSIONER CURTISS: That's average, and what you're propos ng here is no more than half that.

CHAIRMAN CARR: No. They should average-- if four is the max, the average ought to be somewhere around two, I'd hope.

COMMISSIONER CURTISS: Yes. You're talking about going down from an average of seven to an average of two.

MR. GILLESPIE: The speed limit of four is a significant change from the historic data.

CHAIRMAN CARR: Okay. Let's go on.

MR. TAYLOR: I think we'll take this into

account.

DOCTOR MURLEY: I should say, before we leave that, those statistics in SECY 205, Commissioner, may include AITs and some diagnostic types. I'm not sure.

Frank?

CHAIRMAN CARR: Okay. Let's proceed.

MR. GILLESPIE: The last part of this was that we would take this site-specific activity schedule as it relates to what we perceive to be the major activities of the licensee and what we perceive as our significant activities and publish it on some periodic basis, potentially publishing it to cover six months, but publish it quarterly. Because, our plans within the regions actually get re-reviewed about quarterly to make sure how the regions want to focus their resources and where it's at in order to allow the licensee time to communicate back to the region if they see something that's going to be a major impediment that we don't know about, in particular the third party type inspections which we may not have. Although the major INPO visits we do have some idea on, insurance visits, state, other things we wouldn't. And that's the end of this area.

DOCTOR MURLEY: Did you mention the notion

of publishing periodically?

MR. GILLESPIE: That's what I just said.

DOCTOR MURLEY: Oh, excuse me.

MR. GILLESPIE: We'd publish it periodically.

DOCTOR MURLEY: Good.

CHAIRMAN CARR: I've got one question. In your enclosure 4, there, you talk about a proposed process through which an assigned resident inspector staff at a plant with exceptional performance would be reduced to less than N plus 1, and of course that caught my attention immediately.

MR. GILLESPIE: What we're proposing in enclosure 4 on that is that much like the staff's proposal on extending the SALP period from 18 to 24 months for exceptional performers, that the regional administrator at a similar type exceptional performer that goes through the same process would have the flexibility of using the plus 1 that's assigned for other regional purposes, for engineering inspections or at other plants for the time that that plant is considered to be that exceptional performer.

CHAIRMAN CARR: But you'd leave them there?

MR. TAYLOR: Yes.

CHAIRMAN CARR: I mean, you know, if there's only one guy there, he can't go on leave. He can't train. He can't do anything.

MR. GILLESPIE: Well, yes. The N plus 1 we're focusing on is not the N plus 1 at a single unit facility, which we had in place before we went to go into a plus 1 at multiple units.

CHAIRMAN CARR: Doesn't say that.

MR. GILLESPIE: We've incorrectly articulated our concept. Our concept was the N plus 1 at two and three unit sites where we already have multiple people with coverage.

CHAIRMAN CARR: All right. Let's go ahead.

DOCTOR MURLEY: Okay. The last major broad area for improvement, and in some ways the toughest, I think, is getting to the question of giving guidance and expectations and training and stuff to our inspectors who, after all, are the ones that are out there everyday interfacing with the licensees. We have some programs underway. We've had some underway and Frank Gillespie is going to talk about this item.

MR. GILLESPIE: I think what we're seeing here is a growth. In the paper itself, it references

a number of courses dealing with interview techniques, how to conduct an exit meeting, which are offered now as optional courses, many of them on a one time basis. The only thing right now that is absolutely mandatory is the fundamentals of inspection course that touches upon how we expect an inspector to conduct himself relative to things like informal backfits, what he includes and how he phrases things in his inspection reports.

What we're proposing here is to take these various courses and training elements that have been developed and factor them into a more systematic and mandatory and continuing program. It would go that first it would be fundamentals of inspection where we do touch upon what's included in inspection report. This would come normally six to eight months into someone's employment with the NRC. They're fairly junior who generally go out and accompany someone on an inspection.

After about two years into his career, the inspector is more senior, will tend to go out more on his own now. We think we need something more advanced, more analytical, more dealing with how he should be conducting hirself with major findings and how he would present things, what our expectations of

him are and how he would supervise someone else who is junior with him. In particular, this would also reinforce the points of the fundamentals inspection because it did come out of the survey that many licensees view an open item as just as severe as an item of non-compliance. So, how we tone, how we articulate and communicate becomes very, very important, particularly as someone gets more senior.

Then sometime after that, possibly another year, we'd view doing something equivalent to what we now have for IIT team leader training, which includes videotaping, how to conduct a meeting, how to deal in an adversarial condition, what's acceptable, what's not acceptable relative to conduct and professional conduct.

So, we feel comfortable with the technical competence of our inspectors. A lot has been done by AEOD in this area for us and for the program over the last several years. There's been major revisions to our inspection manual chapter covering this to make it more consistent. Based on the comments received, we feel comfortable that our inspectors at a system and plant level are very knowledgeable and very qualified. With more junior inspectors coming in, with more junior people coming in, the need to emphasize and

focus on the professional, the conduct, the attitude side of things, how do conduct an adversarial meeting, is very important.

The second element to this section is an introspective look that we've taken at what do we expect of a regional section chief? What do we expect of the managers in the regions? Are what they're doing what we expect them to do?

An example of this which -- and we focused a lot on this in discussions -- is at the section chief level, the first line supervisor. As he's grown in the type of job he has over the last ten years, he now has a diverse number of people in resident inspectors. He's supervising now from a distance. How does he supervise? When goes to a plant, does he spend his time working with the licensee on technical issues or does he spend time supervising his staff?

The first wave of residents that we had go out, and I was in Region II at the time, were very senior people. We're now introducing many, many people, and I've been to several plants this year, with people with less than one year experience.

CHAIRMAN CARR: As the senior resident?

MR. GILLESPIE: No, as a resident. Our experience level is now going down. So, we want to

focus on what do we expect as a section chief and then what do we expect of his manager and how do they supervise their people? Are we giving them enough time to supervise their people or are our technical expectations of them and what they're doing so all time consuming that they're not having enough time to be out there and making sure that there aren't informal backfits taking place, that the types of communications they're having with the licensees or subordinates are having are the correct types.

In addition, we'd have an expectation possibly that when a supervisor goes out, he should be meeting with his peer at the licensee, asking them, "How is it going," giving them an opportunity to communicate back and at the same time dispelling the idea that the supervisor will also carry on the attitude that was seen of retribution. So, we have to also be responsive. Even if we disagree with what the licensee says, I think we owe it to him to at least think about it and get back to him and say, "I've thought about that and no, I think my inspector was really on firm ground," in each way, up through the whole level, within the regions and within each licensee to promote that kind of communication.

It should be interesting to note that

regional administrators and residents were discussed in detail in Bert's survey and there was a relative absence of discussion of the roles of the various peer levels in between. So, we really would like to focus on promoting the communications at those peer levels so that every issue does not have to rise to the regional administrator. When you take care of problems, communication is at the lowest level possible. This means looking at elements and standards, it means looking at position descriptions and going in and saying, "What do we expect of our people out there?" This kind of look hasn't been done in a long time.

CHAIRMAN CARR: When we take those "junior" inspectors along, is there a conscious effort to decide who's going to be a good inspector and who isn't just by virtue of -- some people have a knack for inspecting and do a better job of it than others, given equal technical skills. I guess what I'm saying is are we grooming people to be good inspectors?

MR. GILLESPIE: We believe we are.

CHAIRMAN CARR: Or do we just assign an inspector because he's got a job code that says he's here and therefore he can be a chief inspector on a team or are we carefully --

MR. GILLESPIE: No, no, no. There's many, many details in the paper. There's a chart in there which has lists of things that we're doing. The new inspector that comes into a region, every region and Headquarter's new inspectors has a very, very formal qualification program to go through.

CHAIRMAN CARR: That's not what I'm talking about. I'm talking about his evaluation.

MR. GILLESPIE: Well, he has a supervisor and he gets evaluated.

CHAIRMAN CARR: Okay. But --

MR. GILLESPIE: Now --

CHAIRMAN CARR: I mean if their recommendation -- his evaluation says, "This guy should be groomed. He's an outstanding inspector and some day he should be the best inspector in the agency."

MR. GILLESPIE: There's no deliberate effort to --

CHAIRMAN CARR: Okay.

MR. GILLESPIE: -- do that outside the normal evaluation process.

CHAIRMAN CARR: One thing I think we've got to make sure across the board is objectivity and lack of bias in the inspectors. You can't teach that.

Some have it and some don't have it. Judgment, of course, is always important. But I'm not sure we're achieving regional consistency. I guess that's what worries me more than anything else is that the guy who inspects a plant in Region I and the guy who inspects a plant in Region IV have got the same kind of objective look, they're looking for the same kinds of things and they -- we're requiring the same kind of things out of them.

MR. GILLESPIE: Well, programmatically we try that. We very, very much try to do that. Any time something new gets promulgated programmatically, it has guidance that goes with it as well as the requirements. I think we're forever going to have some inconsistencies. In major elements, such as maintenance team inspections and EOPs, we have specific training for those which are centrally controlled to try to bring that consistently. The team leaders are specifically trained.

MR. TAYLOR: I'd like to add that I frequently talk with regional administrators about individual inspectors, to try to get an assessment of their performance.

Bert, would you like to add to that? I think you keep a sort of running tally in your own

head about your view from your managers of how individual inspectors are performing. That's part of the process.

MR. DAVIS: And when we make a selection, we post the job and we get a lot of people apply. Of course, we pick the person we think is going to be the best inspector. Now, sometimes you'd maybe not like to pick any of them, but that's rare, I would say.

DOCTOR MURLEY: Other ways of dealing with this, Mr. Chairman, is the policy of rotation that we have. I think that is -- I view that as probably the best way of -- by rotating managers --

CHAIRMAN CARR: It's healthy.

DOCTOR MURLEY: Yes.

CHAIRMAN CARR: Too long current, but that's all right. There's nothing like having a broad background. I mean a guy who has seen 15 plants is going to be a better guy than one who has only seen two or three.

Okay. Let's go on. I've hammered that enough.

COMMISSIONER REMICK: Just picking up on that point, I'd like to add that UC&S about a year and a half, two years ago, made a recommendation that we need to know more what it takes to be a good inspector

and suggested perhaps some research be done. There are things other than technical competence that was being referred to, personality traits and so forth, which are very difficult to evaluate. But the question was do we know enough to know what makes a good resident inspector.

MR. DAVIS: We're doing a fair amount. I can only speak for my region, but we try to make sure that the inspectors are pretty good, the selection that I mentioned. But what we also have is that periodically the inspectors in a branch will have a meeting at a location adjacent to another facility and then all those inspectors will go out to that facility together and walk through some inspections saying, "Well, now here's how I do this. How do you do it?" We're getting some pretty good cross fertilization, I think, among our inspectors in trying to get some uniformity.

We also, of course, have the oral boards that the inspectors have to go through and that sort of thing. As Frank said, each inspection procedure that comes out has in it a section on guidance, "Here's how you ought to go about looking at this thing." So, all that helps.

COMMISSIONER ROGERS: Well, at the risk of

prolonging this business unnecessarily, I think there is an important point here that the Chairman brought out about the personal characteristics of the individuals. One of the things that struck me in my visiting plants is the enormous spectrum of educational backgrounds of our inspectors, experience and education, enormous spectrum. I don't know if we have any that have doctorates, but I wouldn't be surprised, and we have some that are just high school graduates. Yet somehow there's a commonality in that very diverse group of what it takes to be a good inspector.

I would think it would pay us to try to look at this from a human factors point of view and a personality profile point of view, to try to pick out in some way at the beginning those people that seem to have those common features that our best inspectors share, if that's possible. I don't know. I don't know if one can identify that.

But I would think it would pay for us to try to do that because you just don't know when you put somebody in the program how they're going to function. They may be intelligent. They may be technically knowledgeable, but some of these more subtle aspects of the job, diplomacy, firmness,

ability to function when you're out in the sticks someplace all by yourself, it seems to me those are things you're not going to train for. They're people who either have those qualities or not.

CHAIRMAN CARR: There's no doubt the senior resident is going to have a major impact on those juniors where they start. Similarly, the team leader is going to have a major impact on the junior people in those inspections. Those positions are critical in how we do our business.

MR. TAYLOR: Why don't we take your suggestion, take a look at it beyond what we're trying to improve in the training. You go to the heart of selection and the factors and what make an individual perform and we'll take a look at that.

CHAIRMAN CARR: Okay. Let's proceed.

DOCTOR MURLEY: Those are the three major areas for improvement that we've talked about. The paper, of course, lists some other actions which are largely ongoing.

CHAIRMAN CARR: Before we leave that a minute, I heard all those words about our professionalism and we are happy with our technical performance, but we still see those comments that came in that said, "Hey, we spend all our time teaching

those guys our systems and how our plant works when they get there and we spend too much time doing that."

MR. GILLESPIE: In addition, there was some more comments in there which said, "If they went through our SRO training, they wouldn't ask all these questions." I think our comfort feeling is that the training that our people get on systems, granted on the generic plant at TTC and on the simulator, is good systems training, and that there is some advantage that every three to five years when a resident rotates that the atypicalities of a plant be questioned.

On those comments, we do see some advantages on challenging those things where that plant is so atypical that it's got uniquenesses --

CHAIRMAN CARR: I didn't read it as a challenge. I read it as, "Hey, the guy can't even come out and inspect until we educate him on our plant." I got it as kind of the arrival position was he didn't know enough when he got there to be able to do the inspection. Is that -- maybe I read it wrong, but that's the way it came through.

DOCTOR MURLEY: Insofar as we send people out to inspect to BWR and they've only had PWR training, then I think we do need and we are planning to improve our training programs. But some of it I

heard I didn't think was really much we could do about. We have 81 different designs out there that we've got to inspect and there's no way we can train our people on that. They have to take some time to understand the nuances and idiosyncracies of the plant.

CHAIRMAN CARR: Well, I don't have any problem, for instance, with our junior residents out there. I think one of the responsibilities of that plant is to make sure that they train that junior resident in how that plant is different from what they started with.

DOCTOR MURLEY: Yes.

COMMISSIONER REMICK: Before we leave the training, one question that I would have, you know the Commission has a policy statement espousing systematic approach to performance-based training. I look at Bill because of his past background. I assume when we do our training or consider it, we consider the positive aspects of systematic approach to training?

MR. RUSSELL: In fact, I think it's back on an earlier slide. The training advisory group and the senior level oversight that we're having, some of those elements of review are there. We are not using specific job and task analysis, the other

techniques --

COMMISSIONER REMICK: How about needs analysis?

MR. TAYLOR: Ed Jordan is here.

COMMISSIONER REMICK: Okay.

MR. JORDAN: Ed Jordan, AEOD.

As you're aware, we have recently gone through with the program offices and identified training needs against particular positions and then structured our courses to support fulfilling those needs. So, for instance, for NRR for licensing project manager, there is a set of training needs and then courses that will satisfy those needs with respect to that technical position.

Is that what you're trying to --

COMMISSIONER REMICK: Yes. To be more specific in the needs, are those needs established by people who are performing the job currently or they're immediate supervisors so they know what they actually have to do on a day to day basis and therefore the training is directed toward providing that information in whatever format?

MR. JORDAN: The needs were established by the program offices. NMSS did it by a job and task analysis principally and NRR did it by expert opinion

and job and task analysis. So, it was a combination and it's a continually evolving process. Now that we've done it with the program offices, we're going back to the regional offices and upgrading those training programs.

COMMISSIONER REMICK: I'm glad to hear it.

DOCTOR MURLEY: Okay. That concludes then the discussion of the three major areas where we're proposing staff actions to improve. The paper lists other actions which are largely ongoing that we don't plan to discuss today. The Commission is generally aware of those.

This has been an important initiative for the staff, I believe. Senior staff, both regional staff and Headquarters staff, has devoted a lot of time to this activity. The reason is that it's going to affect how the staff carries out the Commission's mission in the coming years regarding regulation of operating reactors.

We have recommendations for the Commission and that is that we issue a *Federal Register* notice on this paper which requests -- seeks public comment, that we evaluate those comments, make changes if they're appropriate in our plans and then return to the Commission once those changes are made for a final

publication of all of these reports with the final actions.

MR. TAYLOR: Mr. Chairman, before we conclude from the staff, I'd like to acknowledge the contribution of Cindy Pederson and Bert Davis, who in addition to their normal duties took on a great deal of the work for the field work in the regulatory impact survey. That was deeply appreciated by the staff.

That concludes our presentation.

CHAIRMAN CARR: Questions? Commissioner Remick?

COMMISSIONER REMICK: One, I'd like to applaud those who conceived the idea of these surveys and for those who conducted it and reported it and as you heard it because I think that clear on the report. And also for the staff, for making a sincere effort to suggest improvements. I personally favor going out for public comment on that, to gain from that.

One question I would have, and I raised it somewhere in the past, this was so successful, I can't help but wonder if we should not consider it in the other areas of our licensing activity, perhaps major fuel facilities or large irradiators or something like that or maybe a questionnaire to some of our byproduct

material people using statistical approach, since they're so large a number. But I wonder what we would find if we went into those materials areas, if we wouldn't get some helpful suggestions about our regulatory process there.

So, I just throw that out as a thought anyhow.

CHAIRMAN CARR: Commissioner Rogers?

COMMISSIONER ROGERS: Oh, thank you. Yes, a couple of questions.

I don't think I heard, or maybe I missed it, about what you're doing about these complaints of untimely responses to licensing submittals. I keep hearing them as I go around, long delays in our acting on a submittal for a license amendment. I know it's been a longstanding question and there are problems that aren't always so obvious about it, but I still hear rather long delays and kind of exasperated point of view from many licensees.

CHAIRMAN CARR: You don't think we could stand up to an inspection of our backlog?

COMMISSIONER ROGERS: No, I don't think so.

DOCTOR MURLEY: I think we're going to get one and I think we can stand up to it in terms of what

we know is in there. Now, some of the actions are probably 17 and 18 years old. So, we can't excuse that. But this is an old issue, Commissioner, and we've dealt with it. Perhaps we can inform the Commission separately of where we're at because we are making strides. But there's some of these old ones that are pretty tough.

COMMISSIONER ROGERS: Okay. I just didn't hear anything about it and I know that was in there very clearly.

Another comment that I didn't hear anything about was the lack of clarity of NRC communications. It seems to me that we do have a problem there. There are times when communications, because of the constraints that they have to be technically correct and legally correct create a situation in which they tend not to be very comprehensible when you're finished, trying to understand what they say. It's a problem that's as old as the hills, but there it is. Specialists very often are not very good writers for the uninformed. We always assume that people know what we're writing about when we write, but it's not always so clear.

I wonder if you're trying to do anything to address this problem of whether a communication is

really understandable and intelligible to whoever is going to get it. I'm not necessarily talking about the lay public. That was another complaint. I'm talking about communications to our licensees that may not be as clear as we think they are and whether we have any way of checking on those. If someone reads them, and I'm not suggesting another long delay process, but someone who doesn't know anything about it reads them and understands them, then they're probably clear. But it is a problem and technical people are well known not to be good writers in general, even though they may have all the technical content correct.

So, this problem of clear writing is a problem every agency has for all kinds of different reasons. But can we try to do a little something here to improve on that problem?

MR. RUSSELL: One of the objectives at the time of the reorganization, when we created the Generic Communications Branch in NRR was to have all of the communications go through that branch, information notices, generic letters, et cetera. We are not presently using technical editors or applying that kind of a standard to those communications. We have a central place that they go through and we would

consider that.

COMMISSIONER ROGERS: Well, I'm kind of unhappy with that approach. It really ought to be cut off at the source. They ought to be clear where they originate. Rather than having another office that things have to circulate through and another place where they can be delayed, I wonder if there's just some simple things that can be done within individual offices to try to make sure that things are clear, just by other people in the office taking a look at it or something.

MR. GILLESPIE: I think there's two elements to the communications, the written products we put out. One is the Headquarters and the other is the regions. We've been working diligently with the regions trying to do those little things to clear up the manual -- chapter that we have in the inspection manual, what should be and how an inspection report is written. We've sent out examples of well written inspection reports, examples of poorly written inspection reports. We've probably reached the point of saying, "We'll continue to keep trying," and that's about what we can do.

I think the regions have a lot of people already reading it. I'd be very hesitant to say the

regions would want more people to read every report. It's a continuing problem. We continue to change it, put more guidance out, and we're going to have to do it possibly somewhat more formally as we get into what do we expect of an inspector. It may mean a writing course.

MR. DAVIS: We tried a number of things, including a clear writing course for our people. I'm appalled at how somebody can graduate from college and not know how to speak or write, but there are sure a lot of them.

COMMISSIONER ROGERS: You can graduate from graduate school with a Ph.D. and not be able to speak or write.

MR. DAVIS: But we are doing a couple of things in Region III. We have our SALP reports sent in to be looked at by a technical writer. This NUREG was reviewed by a technical writer and I was amazed at how many good changes we got on that. I also have my deputy looking at three inspection reports a month, and we pick them at random, to determine whether or not they are technically sound. Probably we're looking more technically than we are at the grammar and that sort of thing. But that's had an impact on the staff. When they don't know if their inspection

report is going to be picked and looked at, I think that's raised the quality a little bit.

DOCTOR MURLEY: The ones I'm most concerned about are the generic communications to licensees. I think it's very important that they be clear, that we don't have to go back with --

CHAIRMAN CARR: Well, then you eliminate this inspector's interpretation out there who is leaning on the licensee to do it the way he thought it meant.

DOCTOR MURLEY: Well, let's pick that up and then continue to work on it. I might add, if I could, I was reading this weekend a Civil War book of a general in the Union Army who had -- he put the dumbest colonel that he knew on his staff so that-- he made the colonel read every order that went out and he wouldn't send it out until that colonel understood exactly -- I'm not proposing that.

CHAIRMAN CARR: I'll volunteer for that job.

COMMISSIONER ROGERS: Just one other point before I leave it, and that is what are we doing as some kind of a follow-up on how well we've addressed these problems. After we put these changes in place, are we going to take a look another two years from now

and see whether they've been effective or not? I'm not suggesting we redo the survey. This was too big an effort. But what are we doing to check to see how well we are succeeding with whatever steps we're taking to alleviate some of these problems?

Secondly, whether we can put something in place that is on a more regular basis to get this kind of feedback without having to conduct a great big survey.

MR. TAYLOR: Well, we are going out for public comment and in his introduction Tom talked about looking at periodically. This is a big resource expenditure. I don't want to overdo it. I think that's a course we're going to have to come back to the Commission on over the long period. This was a big time consumer. I think it's worth doing. But how often is the question.

CHAIRMAN CARR: Well, that's the same problem I hammered at the utilities on. If you don't tell us what the problems are, we can't fix them. We have to go out and survey to find them out.

MR. TAYLOR: We started this because people -- we began getting that drift.

CHAIRMAN CARR: We need those guys to be frank with us when they come in and talk to us,

instead of saying, "Everything's rosy at my plant."

MR. TAYLOR: It's not an answer, but I think we're mindful of the benefit.

COMMISSIONER ROGERS: Yes. Okay. Fine. Thank you.

CHAIRMAN CARR: Commissioner Curtiss?

COMMISSIONER CURTISS: I just have really one comment and one question. First, I thought the work that was represented in the three SECY papers was very thorough and comprehensive and I do think it's healthy to do this every so often. I don't know if nine years is the right period of time or five or two or what have you. But it does seem to me as painful as some of the observations must be when we get them, and they do strike me as very frank, that the three SECY papers really did lay out some consistent themes and trends that you've identified here and focused on in the initiatives that you've laid out.

On the initiatives, I think -- with one exception I thought they seemed to get at the same kinds of problems that as I go around from the plants and talk to people you hear repeatedly at the individual plants, from the CEO right on down to the fellow who is out there in the plant trying to understand a generic letter.

One area that the Chairman raised that I hear more often than others has to do with the consistency of requirements from region to region and inspector to inspector and team leader to team leader. It's a rare case when I come back from a site visit that somebody hasn't commented on how they did X at their site, thought they could do Y or they had talked to somebody else in another region or another plant. It seems to suggest a need in that area to take a hard, critical look at what we can do to, in addition to the training initiatives, Frank, that you outlined and, Bert, maybe some of the things that you talked about that you're doing in Region III, that's a particular area that you continue to hear about.

By far and away the most predominant comment that I get is in the requal area where the teams are going around and perhaps because the evolution in the revisions to the guidelines on conducting requal. But you also hear in the enforcement area increasingly recently design basis documentation, questions about reportability and operability, to take two examples that I've heard about at sites frequently.

If there is something that we can do, and I'll reflect upon this when we consider and vote on

the SECY paper, but if there are thoughts that the staff has that are specifically focused beyond the general training initiatives at getting after that problem, consistency from region to region on SALPs and consistency from inspector to inspector on DBD inspections and requals and so forth, that's an area that I still have a sense -- maybe I'm missing it in what you've presented, but I still have a sense that we're coming up short on in terms of really driving home the point that we need to be consistent region to region and inspector to inspector.

COMMISSIONER ROGERS: Could I just say something? It relates to -- whenever I hear these complaints, I try to track them down and find out what the incident was and what really did happen. I have to say that so far I find very frequently that the allegation that a particular situation was dealt with in totally different ways in two different regions, it turns out to be much more complicated than the licensee's perception of the situation, that they were not identical at all, and that there were very good reasons why there were differences and significant differences in how the staff dealt with the two situations in the two regions.

I'm not just saying that we don't ever

make a mistake on this, but I'm sayin that very often when I hear about it and try to track it down, the problem is a misperception of the actuality of the situation. Therefore, the way you're going to correct that is by better communication on these things. The licensee has to communicate to us their unhappiness with what they thought was an inconsistency and then we have to correct that misconception of what or misperception of what the actuality was. Sometimes these things are separated in time by year or so. So, it's not obvious that you put out something immediately to correct the situation. They fester a little bit and then there it is. It comes up.

So, I would say that this is a little more complex than just our being inconsistent. I'm sure there are times when we are. It's also trying to correct and get the information out to licensees of how we are dealing with situations and that something that looks to be identical is not an identical situation at all.

CHAIRMAN CARR: Let me give you the other side of that. I was just at the --

COMMISSIONER CURTISS: I was going to just jump in, but go ahead.

CHAIRMAN CARR: -- systems ecology group

meeting down in Knoxville and talked to a guy who does laundry in all the regions of the country, and he says, "If you think licensing a laundry is the same in all regions, you can come and talk to me." He says, "I've got a laundry list of differences." So, there's no doubt they're out there.

COMMISSIONER CURTISS: Yes. I'll give you a couple of examples, because there are instances that I've come across that I have in fact followed up on and even understanding the important points that I think Commissioner Rogers raises that do seem to me to fall into this category.

I was at one plant recently that, on the requal exam, for instance, was told that they have to test on exam the tech spec minimum crew that they have. So it it's two SROs and two ROs, that's what was required, even though they may run an additional SRO and an additional RO on the crew. And in checking with other regions, it's clear they found out and we determined that there are other regions or other crews out inspecting where tech spec minimum is not the limitation, that you can test with the crew as you run your crew normally at the site.

I'll give you another example. I was at a plant recently where a fitness for duty inspection was

undertaken and to the great consternation of the licensee they were told that they ought to take a look at having drug dogs for fitness for duty with the particular inspection.

CHAIRMAN CARR: I visited that plant to.

MR. TAYLOR: We've worked on that one.

COMMISSIONER CURTISS: That one has been resolved, but it comes up and it's been raised because of visits like the one that I've identified.

I'll just give you another interesting observation in an area that I know ACRS and others have commented on, and that's SALP consistency region to region. The staff NUREG that comes out most recently that gives the summary of SALP scores over a period of time came out just recently and I've gone through and actually taken a look at the SALP scores region to region to be able to try to determine whether there is any merit to the argument that there is inconsistency: a SALP 1 in one region is different from a SALP 1 in another region. Of the seven categories that we rate in the SALP category, one region is the toughest rater in five of the seven categories. I don't know if that's statistically significant or the variation that you see --

CHAIRMAN CARR: Got the lousiest plants,

maybe.

COMMISSIONER CURTISS: -- is statistically significant. I'm not sure it's that they have the lousiest plants either. But those kinds of questions are, I think, in some cases attributable to the need for clarification that Commissioner Rogers has emphasized. In fact, there have been instances where we've gone out and there is a complaint or a concern about a particular issue and when you dig into it with the resident there on site or come back and ask the project management here at NRR what the situation is, in many cases those issues get resolved because they don't fully understand the situation or, as Commissioner Rogers emphasized, it's more complex than might appear at first blush.

But I must say that -- and maybe it's because of the requal process skewing what we're hearing right now -- there does seem to me to be a greater number of instances where a consistency from site to site or resident to resident or region to region would be deserving of greater attention.

DOCTOR MURLEY: Yes. Let me comment on that. That's a very good observation, because the survey, the way we did it, probably would not have picked up, certainly not focused on regional kinds of

differences because they were focusing on their own problems. And we do -- we're certainly aware that we need to do this. It's NRR's job, quite frankly, to make sure there is consistency on requal programs and we'll just have to -- we know it. We'll just have to make sure we redouble our efforts. I'm glad to hear of these cases and --

CHAIRMAN CARR: You can't do it without feed-back.

DOCTOR MURLEY: Yes.

CHAIRMAN CARR: My problem is we've got to go out and dig out the feed-back instead of getting it gratuitously, if you will.

DOCTOR MURLEY: Yes.

CHAIRMAN CARR: And the implication is, "if we grouch about it, why, you guys take it out on us," and that's the implication I'm trying to destroy, you know.

DOCTOR MURLEY: Yes.

COMMISSIONER CURTISS: I'll give you another good example. I do think this runs the risk of being the kind of anecdotal thing, Tom and Bert, that you'd referred to earlier. It's difficult to rely on.

But, the idea of LCO maintenance, for

example, is one where I've gone around from region to region and talked to, not just the plants who had different philosophies, but to the residents in the regions who have different philosophies on a topic like that. I don't want to go through all the examples that I've heard of as I've gone from site to site, but there are instances out there that, when you get down to it, it's more than just a problem of this case being different from that case. It's an issue that, it seems to me, goes to the consistency of the way we approach and interpret and apply requirements from the site on up here to Headquarters.

MR. TAYLOR: That's an important --

DOCTOR MURLEY: As you pointed out in your trips, one utility does it one way on one site and another way on another site, so one sees a lot of variations like that too. But we'll look into that as well, and I accept the comments because I think that is something we have to always pay attention to, consistency.

CHAIRMAN CARR: Any other comments?

Well, I'd like to thank the staff for this informative briefing.

The Commission currently has before it a more detailed discussion of the regulatory impact

survey recommendations. I strongly support the proposal of publishing these recommendations for public comment before a final set of recommendations is sent to the Commission. I also believe the views of the Advisory Committee on Reactor Safeguards would be valuable to the Commission.

I would urge my fellow Commissioners to promptly consider and vote on SECY-90-347.

Any other comments?

If not, we stand adjourned.

(Whereupon, at 12:20 p.m., the above-entitled matter was adjourned.)

CERTIFICATE OF TRANSCRIBER

This is to certify that the attached events of a meeting of the United States Nuclear Regulatory Commission entitled:

TITLE OF MEETING: BRIEFING ON REGULATORY IMPACT SURVEY REGULATIONS

PLACE OF MEETING: ROCKVILLE, MARYLAND

DATE OF MEETING: OCTOBER 15, 1990

were transcribed by me. I further certify that said transcription is accurate and complete, to the best of my ability, and that the transcript is a true and accurate record of the foregoing events.

Carol Lynch

Reporter's name: Peter Lynch

REGULATORY IMPACT SURVEY

OCTOBER 15, 1990

REGULATORY IMPACT

MILESTONES

– LICENSEE SURVEYS	FALL 1989
– GL 90-01	JANUARY 12, 1990
– STAFF SURVEYS	SPRING 1990
– SECY 90-080	MARCH 9, 1990
– SECY 90-205	JUNE 7, 1990
– SECY 90-250	JULY 16, 1990

REGULATORY IMPACT

LICENSEE SURVEYS

- CONDUCTED SEPTEMBER 25 - DECEMBER 1, 1989 BY SENIOR NRC MANAGEMENT TEAMS
  - * 5 TO 6 MEMBERS PER TEAM
- 13 LICENSEES VISITED
  - * AT LEAST 2 LICENSEES PER REGION
- APPROX. 5 DISCUSSION GROUP SESSIONS PER VISIT
  - * OPERATORS
  - * CORPORATE PERSONNEL
  - * ENGINEERS
  - * MANAGERS
  - * SENIOR MANAGEMENT

REGULATORY IMPACT SURVEY

1. Principal Themes
2. Requirements and Perceived Requirements
3. NRC Licensing Activities
4. NRC Inspection Activities
5. Performance Evaluations

REGULATORY IMPACT SURVEY (cont)

6. Multiple Oversight Organizations
7. Operator Licensing
8. Enforcement and Investigations
9. Reporting Events
10. Communications
11. Qualification of NRC Personnel

PRINCIPAL THEMES

* Licensees Acquiesce to NRC Requests

* NRC Dominates Licensee Resources

REGULATORY IMPACT

MAJOR AREAS FOR IMPROVEMENT

- 1. CONSIDERATION OF THE CUMULATIVE EFFECT OF NRC GENERIC REQUIREMENTS

- 2. SCHEDULING AND CONTROL OF INSPECTIONS, ESPECIALLY TEAM INSPECTIONS

- 3. MANAGEMENT EXPECTATIONS, TRAINING AND OVERSIGHT OF INSPECTORS

1. CUMULATIVE EFFECTS OF NRC GENERIC REQUIREMENTS

- ADDED BACKFIT DISCUSSION TO GENERIC CORRESPONDENCE
- NUREG 1409 BACKFITTING GUIDELINES
- REVISING VALUE IMPACT HANDBOOK
- INTEGRATED REGULATORY REQUIREMENT IMPLEMENTATION SCHEDULE (IRRIS)

REGULATORY IMPACT

IRRIS

- VOLUNTARY LICENSEE PARTICIPATION
- APPLIES TO UNIMPLEMENTED SAFETY ENHANCEMENTS, NOT TO ADEQUATE PROTECTION OR COMPLIANCE REQUIREMENTS
- PRIORITIZED AND SCHEDULED BASED ON SAFETY AND IMPACT
- FROZEN IN ADVANCE OF OUTAGE

REGUALTORY IMPACT

2. SCHEDULING AND CONTROL OF INSPECTIONS

- RESTRUCTURING OF INSPECTION PROGRAM
- EMPHASIS ON INSPECTION PLANNING (MIPS)
- POLICY FOR COORDINATING SITE VISITS
- ADDITIONAL PROGRAMMATIC IMPROVEMENTS

REGULATORY IMPACT

PROGRAMMATIC IMPROVEMENTS

- FOSTER BETTER TEAM AND ROUTINE INSPECTION PLANNING
- NEED ESTABLISHED BASED ON LICENSEE PERFORMANCE OR GENERIC SAFETY
- ANNOUNCE TEAM INSPECTIONS
- CONTROLS ON NUMBER OF TEAM INSPECTIONS (< 4 PER SALP CYCLE)

REGULATORY IMPACT

PROGRAMMATIC IMPROVEMENTS

- BETTER SCHEDULING OF NRC SITE ACTIVITIES
  - UNIT SPECIFIC PLANS MAINTAINED BY REGIONS
  - UPDATED QUARTERLY
  - CONSIDER ALL MAJOR SITE ACTIVITIES
  - TO BE PUBLISHED PERIODICALLY

REGULATORY IMPACT

3. MANAGEMENT EXPECTATIONS, TRAINING AND OVERSIGHT

- EMPHASIS ON PROFESSIONALISM
- SPECIALIZED TRAINING FOR STAFF
- TRAINING ADVISORY GROUP
- TEAM LEADER POSITIONS
- ENHANCE TRAINING

REGULATORY IMPACT

ENHANCED TRAINING

- REFINE FUNDAMENTALS & ADD REFRESHER
  - ROLE / CONDUCT OF INSPECTOR
- INTERPERSONAL SKILLS TRAINING
  - COMMUNICATIONS, INTERVIEWING, MEETINGS
- PROBLEM SOLVING AND DECISION MAKING

REGULATORY IMPACT

PROFESSIONALISM

- MANAGERS AND SUPERVISORS
  - COMMUNICATE EXPECTATIONS
  - SOLICIT FEEDBACK
  - OVERSIGHT / ACTION
- INSPECTORS
  - PROFESSIONALISM IN ALL ACTIVITIES

REGULATORY IMPACT

OTHER ACTIONS

- NRC LICENSING ACTIVITIES
- NRC INSPECTION ACTIVITIES
- PERFORMANCE EVALUATIONS
- MULTIPLE OVERSIGHT ORGANIZATIONS
- OPERATOR LICENSING
- ENFORCEMENT
- EVENT REPORTING

CONCLUSIONS

- RECOGNIZED AREAS FOR IMPROVEMENT
- INITIATED CORRECTIVE ACTIONS
- SOLICIT & EVALUATE PUBLIC COMMENTS
- ADJUST ACTION PLANS
- FINALIZE NUREG 1395