

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON PROGRESS OF NRC
REGULATORY REVIEW

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PUBLIC MEETING

Nuclear Regulatory Commission
One White Flint North
Rockville, Maryland

Friday, March 26, 1993

The Commission met in open session,
pursuant to notice, at 10:00 a.m., Ivan Selin,
Chairman, presiding.

COMMISSIONERS PRESENT:

IVAN SELIN, Chairman of the Commission
KENNETH C. ROGERS, Commissioner
JAMES R. CURTISS, Commissioner
FORREST J. REMICK, Commissioner
E. GAIL de PLANQUE, Commissioner

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STAFF SEATED AT THE COMMISSION TABLE:

SAMUEL J. CHILK, Secretary

WILLIAM C. PARLER, General Counsel

JAMES SNIEZEK, Deputy ED for NRR, Regions and RES

FRANK GILLESPIE, Director, PMAS/NRR

JOHNS JAUDON, Deputy Director, Division of Rad. Safety
and Safeguards, Region IV

CECIL THOMAS, Deputy Director, Division of RC & HF,
NRR

JOSEPH MURPHY, Deputy Director, Division of Systems
Research, RES

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

10:00 a.m.

CHAIRMAN SELIN: Good morning, ladies and gentlemen. The Commission is pleased to welcome members of the staff to brief us on the progress of the regulatory review group, which was established several months ago to conduct a comprehensive examination of our regulations, guidance and inspection processes. I'd like to emphasize that this includes the actual processes and not just the paperwork that leads to them.

The Commission views this as an important effort to provide recommendations on what revisions to NRC regulations, guidance and practices should be made in order to give increased flexibility without having a negative impact on reactor safety.

This is a progress meeting this morning. There is no paper, but there are viewgraphs that are available.

Do you have any comments to make, Commissioners?

In that case, Mr. Sniezek, the floor is yours.

MR. SNIEZEK: Good morning, Mr. Chairman, Commissioners. We're pleased to be here today to

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1 brief the Commission on the progress the regulatory
2 review group has made in carrying out the activities
3 set forth in the review group charter, which was
4 approved by the Commission on February 2nd of this
5 year.

6 Frank Gillespie, the review group leader,
7 will give the bulk of the presentation. He is
8 accompanied at the table by three SES managers. Johns
9 Jaudon from Region IV was leading the effort
10 associated with examination of the regulations and
11 implementing guidance. Cecil Thomas from NRR was
12 leading the license analysis efforts, and Joe Murphy
13 from the Office of Research was leading the review of
14 risk technology and its application to NRC and
15 licensee programs.

16 The review group activities are on
17 schedule and thus far we have the opportunity to
18 receive input from each of the Commissioners
19 individually. We have briefed the ACRS and we have
20 held two public meetings. Likewise, we have met
21 twice with the senior steering committee and received
22 their feedback and input on the task. Although we are
23 not yet ready to provide recommendations to the
24 Commission, we have insights from our efforts thus far
25 which we will be covering in our discussion today.

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1 I will now ask Frank Gillespie to proceed
2 with the briefing.

3 MR. GILLESPIE: Let me start with -- much
4 of what we're doing builds upon at least two current
5 programs and one significant past program, that being
6 the marginal safety program in the Office of Research.
7 As it happens, a cornerstone of kind of what our
8 results are coming out, the new improved tech spec
9 program, and the CRGR effort from earlier last year.

10 In pulling those things together as our
11 starting point, it gave us some insights, in
12 particular reading the public comments on the CRGR
13 package, which probably caused us to attack certain
14 areas a little more vigorously. We think that the
15 data we're coming up with basically is supportive of
16 many of the public comments already received. In
17 particular on the focus on the need to look at
18 licenses themselves if you're going to be relieving
19 regulatory burden.

20 We come out very supportive of those
21 programs and on the marginal safety program we have
22 some findings in rule space that are slightly
23 different than might be on their list now. In fact,
24 a letter from NUMARC would imply that NUMARC is
25 rethinking some of their suggestions, particularly in

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1 the area of quality assurance.

2 Let me jump to a letter that we got from
3 NUMARC on our last public meeting and on some material
4 we put in the public document room. It came across
5 very supportive. It's seven pages long and in the
6 package that preceded the viewgraphs we sent up, which
7 was fairly substantial, it had data sheets and
8 everything in it that we placed in the public document
9 room, we discussed policy statements, of which NUMARC
10 came in and was very supportive of the idea that we
11 really need to look at the policy statements and clean
12 out the ones that are replications of rules that are
13 also in place, that there was a deficiency in the
14 tidiness of what's out there, which adds only to
15 confusion.

16 Apparent inconsistencies in regulations
17 with regard to methods and which certain regulated
18 activities are placed under licensee control, this in
19 particular addressed some material I believe is in
20 that paper, which we're going to go through in more
21 detail, on 50.54(f) and the difference between
22 50.54(f), which covers the change mechanism, quality
23 assurance, emergency planning and security versus the
24 50.59, which is the change mechanism for safety
25 systems and the fact that 50.59 is far more liberal

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1 than 50.54(f). In fact, there is probably a built-in,
2 if you would, ratcheting mechanism that we have
3 allowed to exist in 50.54(f) by basically a lack of
4 baselining how much is enough.

5 Quality assurance was something we got on
6 right away. It was part of the NUMARC package the
7 Commission received in December. In the two public
8 meetings, our emphasis has been on the literal reading
9 of Appendix B and it was a reasonably extensive write-
10 up, four or five pages, that was included in our
11 package on QA, which kind of laid out a tangled web of
12 what quality assurance has come to mean in the
13 regulatory context.

14 NUMARC, in their letter, has said they're
15 setting up, they're forming an Appendix B working
16 group and, in their words, "to develop recommended
17 improvements in the implementation of QA programs."
18 The focus in QA has really gotten now to
19 implementation, which is what our recommendation
20 basically was. Appendix B as a QA rule is, in fact,
21 very performance oriented. It has the words in there
22 in proportion to safety. I think it's going to be
23 important for us to have a fairly high level policy
24 coordination with them on this working group and they
25 also go on to another recommendation we had on true

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1 graded QA using risk insights.

2 They talk about the use of risk technology
3 for unreviewed safety issues, which was another item
4 we had in there on 50.59. Their comment is the same
5 as ours, appropriate ground rules will be necessary so
6 that both licensees and inspector understand how it's
7 going to be implemented. Again, very supportive.

8 Regulatory review form, they reiterated
9 that their issues one through eight are still
10 important to them and that there is some overlap.
11 They did comment on our review, our draft review of
12 the Seabrook operating license, where we went in tech
13 spec by tech spec, line by line, picked out certain
14 ones with characteristics to illustrate certain things
15 in it. They have a mixed comment there. One is, and
16 also as we noted, we should be careful not to get too
17 over zealous on NTOLs as compared to other licenses
18 and that there is some things in licenses, and this
19 will get me to the new improved tech spec program, in
20 the public comments received from CRGR on the draft
21 policy statement on how we implement the new improved
22 tech spec program and the approach to that.

23 The information on performance-based
24 regulation, the industry agrees with the general
25 content of this item. We believe that further

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1 NRC/industry dialogue is necessary. They are setting
2 up another working group which is to coordinate and
3 facilitate the distribution between and among the
4 members of the utility industry on risk applications.
5 In fact, they have picked up on all the applications
6 that we have kind of focused in on as an initial focus
7 and they highlight a second time at the end the use of
8 PRA for tech specs, which we've touched upon and we
9 can go through in more detail. We've done -- there
10 are some backup slides that we have that address some
11 of the work we've done there on how to approach it,
12 and probabilistic risk assessment as the grading
13 mechanism for approaching quality assurance.

14 So, it's a very positive letter. There
15 were no negatives, which was --

16 CHAIRMAN SELIN: The Commission gets
17 suspicious at this point.

18 MR. GILLESPIE: That's what I was afraid,
19 so I thought I'd better bring up the letter before you
20 just get a copy in the mail. I just got it yesterday.
21 They wanted me to get it, so they faxed it in and it's
22 coming in through the normal mail also. Very, very
23 positive and I think they recognized even in another
24 letter they sent in on risk-based regulation that
25 there was a lot going on within the industry and that

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1 all the pieces were not, in fact, in the industry
2 itself real well coordinated.

3 MR. SNIEZEK: I didn't tell the
4 Commissioners at this time that we will, as soon as we
5 get the letter in the hard copy, we'll send a copy up
6 to the Commission.

7 CHAIRMAN SELIN: We never doubted that.

8 MR. GILLESPIE: It's so very seldom you
9 get a letter that said you did something right that
10 you kind of feel good about it.

11 CHAIRMAN SELIN: I'm a little confused as
12 to the relative role of these different -- and
13 particularly the NUMARC documents, but not just those,
14 in terms of what you're doing. Obviously this group
15 was set up was not just in response to the NUMARC
16 document but one of the intentions was that the
17 Commission or at least the staff be in position to put
18 those recommendations into a broader context with
19 other things that were going on. Is that happening?

20 MR. GILLESPIE: Yes. Yes. Let me get
21 into information collection. The entire staff in
22 every office has been very open with us, everything
23 from the draft efforts going on in looking at
24 reporting requirements, the tech spec people, the
25 people in Research on risk. We feel like right now we

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1 have a very good handle on what's going on within the
2 Agency and how things might need to be fitted
3 together.

4 Let me address directly -- in scoping the
5 problem in the licensing area, we really come down to
6 a process question on servicing licenses. While our
7 package has many, many examples, I think, of
8 individual tech specs that may be needed to be
9 deleted, we also asked the question why, why hasn't
10 someone written in and deleted them? We've interfaced
11 with the steering group in NRR and there are some
12 things going on now to try to correct the process,
13 which in the past has been inhibitive of people coming
14 in and asking for changes which strictly focused on
15 burden reduction.

16 Our schedule, we're intending to have a
17 completed draft report in the public document room by
18 May 28th.

19 CHAIRMAN SELIN: Why don't you get your
20 documents up on the screen?

21 MR. GILLESPIE: Okay. There's someone
22 back in the room.

23 (Slide) Go to page 2.

24 Basically when you're a six month task
25 force, the last two months are not origination time,

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1 but tend to be time when you're 30 days for public
2 comment and then the last month is getting the public
3 comments, folding it in and getting the report out.
4 So, our real effort ends by May 28th on original work.

5 (Slide) Let me go over the review of the
6 regulations, which is slide 3.

7 CHAIRMAN SELIN: Before you get off this,
8 are you planning to go out of business on July 30th or
9 will you be the core of the implementation efforts?

10 MR. GILLESPIE: We are planning to go out
11 of business.

12 MR. SNIEZEK: During the latter part of
13 the presentation, Mr. Chairman, you'll find that at
14 least one of the offices is already picking up on an
15 implementation of what they see may be coming out as
16 our recommendations.

17 MR. GILLESPIE: In the review of the
18 regulations, we did find some things that really
19 needed to be looked at. We found some things that
20 didn't need to be looked at. Quality assurance, the
21 literal reading of the regulation looks very good.
22 It's reasonably performance oriented, it's not all
23 that prescriptive. How that's been implemented over
24 the last 20 years is very prescriptive in both the
25 inspection and the licensing process. This -- if

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1 you'll allow me, I have to jump between regulations.
2 There's Appendix B for quality assurance and there's
3 50.54(f) on how you get changes to your quality
4 assurance program. I mean (a), excuse me.

5 The way the change mechanism is set up,
6 and this holds for security and emergency planning,
7 the licensee can upgrade his program at any time but
8 if he wants to remove that voluntary upgrade, he has
9 to get our permission. This has just introduced an
10 avenue which we saw the comments on in the regulatory
11 impact survey three years ago. The avenue is still
12 there. There is no baselining above which the
13 licensee has freedom to do things and take things away
14 and add things in. So, there is basically no
15 regulatory threshold on how much quality assurance is
16 really enough. That applies across to those three
17 areas.

18 In stepping back, how has this manifested
19 itself in specific examples, let me use the ATWS as an
20 example. We sent out a generic letter after we had
21 the ATWS rule in place and said, "ATWS equipment needs
22 to be in a QA program." In the generic letter we
23 said, "And we've developed a consensus that the
24 industry doesn't feel two QA programs are necessary
25 and therefore it would appear that this should be

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1 folded into the Appendix B QA program."

2 Fire protection has gone the same route
3 and we have really piled on in the Appendix B program
4 many, many, many, many items over the years, not
5 through regulation but through issuing a regulation
6 and then following it up with some subsequent
7 regulatory document that said, "Gee, it would be nice
8 if you did it that way."

9 CHAIRMAN SELIN: Are you technically
10 saying that we have a set of QA programs each tied to
11 a specific problem and it's time for a functional
12 review of QA to see if these can be consolidated?

13 MR. GILLESPIE: Well, they've been
14 consolidated in kind of a patchwork way over the
15 years. What we're saying is it's time to step back
16 and look at QA overall and say, "Have we over burdened
17 the system?" because the second problem is the way QA
18 has been implemented directly from Appendix B. The
19 industry standards that cover this, which we endorse
20 via regulatory guide, are in ANS 3.2, which generally
21 has been incorporated by reference into licenses,
22 which also drags in Standard NQA-1, which is a
23 construction standard but generally covers
24 procurement. In the general view, although the rule
25 would allow a graded approach where you should only do

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1 what you need to do to satisfy Appendix B in
2 proportion to the item's safety impact, has been to
3 treat every item exactly the same. So, as more and
4 more items got into it, we end up at this point where
5 Mr. Braun, who sent his letter in last year with the
6 set screw attached, is paying \$300.00 for a set screw;
7 where if you looked at it in a graded approach from
8 system importance, component importance and the
9 importance of an individual part to a component, you
10 may come up with a different focus of the QA program
11 on what is really safety significant. Yes, it may be
12 time now to step back. NUMARC has now written in and
13 said they want to put a working group together to step
14 back and take a look at the whole thing again. What
15 they're proposing to look at is all this implementing
16 structure that has been kind of patchworked together.

17 MR. SNIEZEK: Frank, I'd like to add
18 something at this time, just to make sure the
19 Commission doesn't get the wrong impression. This is
20 not solely a staff problem. This is an industry
21 problem and they have contributed equally to the
22 situation that exists. They're going to have to work
23 equally as hard to correct the situation, even more so
24 than the staff may have to work to correct it.

25 MR. GILLESPIE: Yes. I can give a

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1 specific example which I used at a public meeting and
2 all of a sudden some cards and letters started coming
3 in. We had a reg. guide which we published for
4 comment which was to endorse the new standard NQA-1,
5 which covers procurement. I was involved at the time
6 and deliberately had a paragraph put in the
7 solicitation for comments to say, "Does anyone feel
8 that graded QA or risk insights have any place in the
9 supporting guidance for QA?" No one responded to that
10 paragraph. Zero response. I happened to be meeting
11 with a licensing manager and his boss and I brought
12 that up and the licensing manager read the title and
13 immediately shuffled it off to the QA group who
14 thought it was great to keep doing everything we're
15 doing. The licensing manager, when I read the second
16 paragraph to his boss as he sat there, turned white.

17 I also made a point of this at my meeting
18 with NUMARC and I do have to say that Herschel Spector
19 of Power Authority of New York got a phone call and
20 submitted ten pages of comments on the use of risk in
21 graded QA, at least as a place holder.

22 So, we got the industry's attention that
23 you can't just take one of those things and pass it to
24 the specialist involved because the specialist is
25 going to agree with our specialist.

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1 CHAIRMAN SELIN: Go back to this -- Mr.
2 Braun's screw example. Would the New York Power
3 Authority have the authority to fix that themselves or
4 do they need dispensation from us?

5 MR. GILLESPIE: It would appear -- I'm not
6 going to hedge. It's a middle ground.

7 CHAIRMAN SELIN: This is not hedging.

8 MR. GILLESPIE: This is middle ground.
9 This is going to highlight the problem with 50.54. It
10 was an excellent question. 50.54 says that if you
11 reduce your commitments you need NRC permission. Not
12 a license amendment, you need to get NRC approval.

13 CHAIRMAN SELIN: Regardless of where you
14 are compared to your colleagues and your PRAs?

15 MR. GILLESPIE: Regardless of where you
16 are. Now, in reading the regulations, it is clear in
17 the regulations that the QA plan, and I'm going to try
18 to use the words as best I remember them, is a
19 demonstration of how you were going to fulfill your
20 commitments. Over the years, the QA plans have, in
21 and of themselves, been taken as the commitment. So,
22 if I've got 18 QA inspectors and I want to go back to
23 17 because I think the 18th isn't needed, I do need to
24 get the NRC's permission to cut back in the current
25 process that's evolved.

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1 So, indeed, I would have to say that he
2 probably would have to get our permission to change
3 something somewhere to do that. It's highly likely
4 that it's contained in his plan or on his Q list which
5 is incorporated into his plan, which is then
6 referenced by Chapter 17 of their FSAR.

7 CHAIRMAN SELIN: Why don't you go the next
8 step to say what would have to be changed for him not
9 to require our permission?

10 MR. GILLESPIE: He would probably -- to
11 change the overall culture, he would change his plan.
12 Appendix B has several paragraphs in it and depending
13 on its importance you keep track of the heat of the
14 steel from the -- right from the foundry.

15 CHAIRMAN SELIN: I'm sorry, I didn't put
16 my question clearly. What would we have to change in
17 our regulatory regime to make it clear that he didn't
18 have to come back to us to get permission? Would that
19 be a rule change, a reg. guide change?

20 MR. GILLESPIE: It would not have to be a
21 rule change. The reg. guides are silent on it now.
22 There probably would need to be a reg. guide change or
23 a change to an endorsement of a standard which is
24 better written to allow for graded QA.

25 CHAIRMAN SELIN: I see. Thank you very

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1 much.

2 COMMISSIONER REMICK: In fact, Frank,
3 isn't that the problem? You indicate that Appendix B
4 to Part 50 is performance oriented. It's not the
5 rule, it's our implementations.

6 MR. GILLESPIE: It's our implementations,
7 yes.

8 COMMISSIONER REMICK: So, those can be
9 changed.

10 MR. GILLESPIE: And to focus us down on
11 the problem, what we've been doing as a group is try
12 to get down to the exact documents that are the
13 offending documents and to replace the standard you
14 need another standard functionally. To replace the
15 reg. guide endorsement of the standard, you need to
16 another reg. guide. The burden here would be would
17 the NRC want to take on the burden of generating the
18 guidance document or should the industry, and I
19 believe the industry should take on the burden of
20 generating the standard and we would then endorse it.
21 They are the people with the technological background
22 knowledge, current plant knowledge. I think we do
23 have to put out some guidance if we're changing
24 approaches as to general direction of what would be
25 acceptable to us, so there won't be a "bring me a

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1 rock" syndrome.

2 But it does not appear that a change to
3 Appendix B is warranted. In fact, we have a letter
4 that was written in to Dick Volmer which -- I forget
5 who it was from, but basically said, "Maybe we have to
6 change Appendix B only to repackage it to let people
7 know that we're willing to do something different."
8 I don't think that's really the right reason to change
9 Appendix B.

10 Going on, I've reached about items under
11 licensee control already.

12 Part 21, NUMARC wrote in and discussed
13 their definitions on Part 21. Aside from them, we
14 came to the same conclusion, that the definitions
15 really need some work as they apply to procurement.

16 Fire protection as related to QA, fire
17 protection was not dealt with in the rules relative to
18 a change mechanism. Appendix R was put in place, fire
19 protection plans were required and everyone was then
20 given a license condition which basically mimics 50.54
21 for fire protection plans. So, fire protection really
22 is in the same category as the other ones relative to
23 having a lack of baseline, which is allowed -- what
24 could be perceived as enthusiastic striving for more
25 and more and more safety on the part of both reviewers

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1 and inspectors and acquiescence on the part of
2 licensees to have a creeping up and up and up of
3 additional requirements.

4 In-servicing testing we touch upon in the
5 sheets. ASME right now has, as I understand it, a
6 working group going to introduce risk techniques into
7 IST and ISI. So, for in-service testing and in-
8 service inspection. In particular, in-service testing
9 of pumps and valves is extremely labor intensive. So,
10 this should be an area of great interest. Although
11 the ASME code groups move relatively slowly, we would
12 end up in the end probably incorporating what they
13 would come up as an industry group, or at least
14 reviewing it from a corporation into 50.55(a). So,
15 there is movement in that area.

16 Policy statements I've already touched
17 upon. I was not going to go into details on every
18 sheet unless there's specific questions on --

19 COMMISSIONER REMICK: How about security?
20 You mentioned you completed your review but you didn't
21 make any comment. Is that performance-based or
22 prescriptive?

23 MR. GILLESPIE: Let me make a comment. We
24 asked a broader question on security. Our first
25 approach was how much security is enough, do the

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1 regulations tell us? How is that related to the
2 threat? Well, we have a threat in the regulations and
3 we have a regulation in 73.55 which gives a broad
4 performance statement and says compliance with (b)
5 through (h) complies with this. Over the years, how
6 that has been complied with has varied basically due
7 to the inspection process. Also, we've gotten
8 comments back that the RER process that we had, when
9 weaknesses were found, all of a sudden people would
10 fix and fix and fix the weaknesses. So, 73.55(b)
11 through (h) are not the baseline for most facilities.

12 I could give you an example. Where this
13 comes most into play is security staffing. In
14 security staffing there are several documents we've
15 put out, an information notice in 1986 which has been
16 used to imply that you cannot use the same people as
17 part of your response force who are acting as
18 compensatory measures. In fact, there is at least one
19 utility that wrote in to us and said, "That causes us
20 to have about seven extra guards just sitting there
21 waiting for things to break."

22 COMMISSIONER REMICK: Waiting for a
23 lock --

24 MR. GILLESPIE: Waiting for a lock to
25 malfunction, waiting for a zone to go out. In fact,

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1 there is a significant -- at some utilities, and it
2 varies across them, increased staffing as a result of
3 an I&E information notice that was put in to discuss
4 not using dual people and the information notice was
5 interesting titled, "Prolonged Compensatory Measures,"
6 but in its implementation and inspection, the title
7 "Prolonged" got lost. Prolonged got defined by a
8 NUREG that the NRC put out which was also referenced
9 in it as immediate and ten minutes as the reaction
10 time necessary. We've got a reasonably extensive
11 write-up that we've written up on this as it affects
12 security staffing. So, there is a significant
13 increase in burden relative to staffing by the lack of
14 a baseline of how much is enough, that the process at
15 certain utilities who had aggressive reviewers,
16 aggressive inspectors and the desire to acquiesce have
17 basically hurt themselves.

18 COMMISSIONER REMICK: How about the
19 regulation itself, 73? We have such things in there
20 as the number of rounds of ammunition for each weapon
21 and so forth. To me, that is not performance based.

22 MR. GILLESPIE: Part 73.55(b) through (h)
23 is reasonably prescriptive. I don't have a
24 recommendation on how to get around this, particularly
25 in the area that says you have to have -- for planning

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1 purposes you should have ten guards, you should always
2 have a minimum of five for a response force. Well, in
3 some cases prescriptive rules may be okay when you
4 really want to assure that you'll have a minimum
5 response at some level.

6 What we ended up focusing on was the
7 burden itself and how the burden got to be what it is.
8 You get the anecdotal information about the people who
9 have 35 people on shift. As best we could read
10 73.55(b) through (h), the maximum shift level that we
11 could come up with that would be required by the rule
12 was 13.

13 COMMISSIONER REMICK: My problem with 73,
14 honestly, if I was asked to evaluate a licensee on
15 whether they met Part 73 without the regulatory
16 guidance though and just reading the regulation, I
17 would have no way of knowing other than counting
18 rounds of ammunition and a few things like that. It's
19 a ponderous regulation, in my view. I have a slight
20 bias going back some years with having to try and live
21 with it.

22 MR. GILLESPIE: Well, with the focus on
23 burden, we were looking at staffing. Two things
24 contribute to cost, when you have to buy something and
25 you're paying too much and if you have to have too

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1 many people doing it. So, in this case we're looking
2 at the regulations there. Yes, there's a prescriptive
3 nature to it, but it appeared the more immediate
4 problem was the lack of baselining of how much is
5 enough. You rapidly get so there's a disconnect then
6 in the regulations themselves in the licenses. If the
7 threat goes with the performance requirement but the
8 performance requirement doesn't go with the licenses,
9 there's an inappropriate disconnect, we feel, there,
10 which is a significant addition to staff levels which
11 adds to cost.

12 COMMISSIONER CURTISS: Frank, before you
13 go on, on your discussion of what I guess I'd call the
14 changed mechanism for licensee commitments, I gather
15 what you have concluded to date is that we've got in
16 the regulations several different approaches to
17 changed mechanisms. We've got the Appendix B don't
18 reduce commitments, we've got security and EP, don't
19 reduce effectiveness. We've got tech specs, don't
20 change them at all without an amendment, several
21 different approaches that we have taken which don't
22 appear to be tied together. We're inconsistent in our
23 approach to change mechanisms.

24 I have two questions. First, in those
25 areas where we have taken the approach of saying,

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1 "Don't reduce effectiveness," and I actually think
2 there's a third that I would add to your list.
3 Security is one, EP is another. 54.33(c) of the
4 license renewal rule has the same provision in it.
5 Once a license renewal applicant has submitted its
6 program, they're not allowed to change it if it would
7 reduce the effectiveness of that program.

8 Have we been consistent in how we have
9 applied that kind of change mechanism in evaluating
10 reduction in effectiveness in those regulations where
11 that is employed?

12 MR. GILLESPIE: I can't answer that. In
13 the application of it, we have not dug in to review a
14 sampling of have we been consistent plant to plant
15 where they've asked for reductions. We were focused
16 on more why are we doing what we're doing. If the
17 regulations set the baseline when we go to the actual
18 license, why is the license way ahead of what the
19 regulations require? You actually have to go in then
20 and do kind of a case study on multiple different
21 reviewers, different sites.

22 Our criticism of the change mechanism
23 isn't the change mechanism so much as the lack of
24 baselining. Not having a baseline allows the
25 inspection and review process to potentially ratchet

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1 up and up and up and up. So, it's the lack of the
2 baseline.

3 An FSAR is basically frozen. The design
4 of the plant is frozen the day they get their
5 operating license, for the most part. You're not
6 going to -- and then 50.59 governs for major changes.
7 50.59 allows people to change out steam generators
8 without our prior review. Certainly that is an
9 important safety function, yet we are far more
10 restrictive in the other areas than we are in
11 something with that kind of direct safety function.
12 The security plan basically was not frozen in place
13 the first time we said, "Okay, this complies with
14 73.55(b) through (h)," the same way the design was
15 frozen in place because no one was certainly going to
16 put in a third loop on a two loop plant.

17 COMMISSIONER CURTISS: Yes. And the
18 questions that you're asking in that area are the same
19 kinds of issues that in the context of Part 54 with
20 that particular provision I've asked, why don't we
21 have a 50.59 type change mechanism for changes to
22 license renewal applications rather than a reduced
23 effectiveness standard that we have applied?

24 I just want to encourage you as you look
25 at the change mechanisms and the reduced effectiveness

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1 ones in particular to include that license renewal
2 provision because it's a matter of current interest to
3 many of us here and make sure that your effort covers
4 that.

5 My second question really goes to having
6 found that we haven't been terribly consistent in our
7 change mechanisms, are you to the point where you have
8 started to formulate options or recommendations for
9 how to address this problem?

10 MR. SNIEZEK: Let me address that because
11 I said we weren't going to say what our
12 recommendations were because I don't think we're ready
13 for recommendations. But I would not be too surprised
14 if this group were to come out saying something
15 similar to this, that as a minimum where we say you
16 cannot reduce the effectiveness, we have to define
17 what we mean by the word "effectiveness." For
18 example, in the security regulation, it's meeting (b)
19 through (h), I think are the numbers that Frank
20 referenced, and what that means. We have to be more
21 specific on what it means. Otherwise, we don't have
22 a threshold to be used by our inspectors, our
23 reviewers or the utilities as far as what they're
24 really supposed to be doing and what they can do
25 without our prior approval. I think as a minimum we'd

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1 have to come up with that type of a recommendation,
2 but I'm not sure what's what we'll come out with yet.

3 COMMISSIONER CURTISS: I'll look forward
4 to it.

5 MR. SNIEZEK: I'd also like to say Frank
6 used a term "continuous ratcheting through the
7 inspection process." I want to talk a little bit
8 about that because it sounds so negative when you say
9 those words and it's not meant to be as negative as it
10 may be coming across.

11 What that means, our inspector goes out
12 there and they may ask the EP coordinator for the
13 licensee or the QA manager or the security manager a
14 question about, "How do you know you're meeting this?"
15 and then they raise the question and perpetuate up
16 their change, "I was asked this question. Maybe we
17 should do this to avoid being pressured in this area,"
18 and that's how things happen. It isn't a demand that
19 they do it, but even just the simple asking of a
20 question. That's where the utilities have a lot of
21 work to do to get their house in order so those things
22 don't happen on their site in a simple response to a
23 question.

24 Did I say that right?

25 MR. GILLESPIE: Yes.

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1 MR. SNIEZEK: All right.

2 MR. GILLESPIE: You know, the inspector
3 and reviewer are only falling back on the body of
4 information this agency has given them as a basis for
5 their reviews. If the body of information in QA-1 is
6 endorsed by a regulatory guide, I quite honestly
7 cannot fault the reviewer for falling back and saying,
8 "Well, I know if they do this to everything they
9 procure, they meet what the Commission's regulations
10 had intended." When you get into that fuzzy area of
11 proportional to safety importance, there is no
12 guidance on what is proportional to safety importance.
13 So, the inspector and reviewer will always fall back
14 on the conservative, "What is the current written
15 word?" and the current written word, quite honestly,
16 is somewhat dated out there now.

17 So, they're doing what we've asked them to
18 do and they're doing it with the guidance we've
19 provided them.

20 (Slide) Let me go now to page 9, license
21 reviews. The major insights on the rules were really
22 the baselining on 50.54, the change mechanisms, some
23 spinoff in reporting requirements. Every 18 months
24 you report changes to your plant, but every -- I think
25 it's 30 days you have to report changes to your

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1 security plant. It seemed like a somewhat -- and
2 that's changes that don't reduce it. So, there were
3 some other small inconsistencies in the rules that
4 really need to be cleaned up, but not major impacts on
5 burden.

6 Which got us to our license review and how
7 our rules are implemented. We've completed a review
8 of Seabrook and Surry. We're going on to look at
9 Peach Bottom and Perry. We're trying to expand as
10 many representative licenses of both design types and
11 age as we could in looking at the licenses. The
12 overall conclusion, although we've listed the eight
13 areas, et cetera, that we looked at, how we sorted,
14 the overall conclusion was that there was a lot that
15 needed to be cleaned out of licenses. This was very
16 consistent with the split document that was in support
17 of the improved tech spec program. In fact, in
18 reading the details of our Seabrook report and the
19 Surry report, which will probably be out in about
20 another week, it fully supported the items we found on
21 Seabrook. In our public meeting we brought this up
22 and we started focusing in on the public comment that
23 came in exactly on this area as a result of a question
24 by Detroit Edison to the CRGR review.

25 The question was the role of the new

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1 improved tech specs in a generality as an all or
2 nothing package. There were, in fact many of them
3 reporting requirements, a number of things that made
4 absolutely no sense as to why they had any
5 significance to be in the tech specs or in the license
6 at Seabrook and we identified about a dozen which were
7 all consistent with things that were being taken out
8 of the new improved tech specs. It raises the
9 question whether the new improved tech specs, as they
10 get implemented, should be an all or nothing or are
11 they a goal that we should allow people to strive to
12 get to and allow them to make the decision on which
13 pieces they want where it makes sense.

14 At the last meeting, NUMARC's comment was,
15 "Yes, there are parts of licenses which are consistent
16 across all licenses, which just should come out."
17 Now, the advantage here is when you take a reporting
18 requirement or a surveillance or something out that
19 just doesn't make safety sense, you get an immediate
20 payback in a reduction of having to bother with it
21 anymore, without having to retrain all your operating
22 crews and change all of your procedures. So, in
23 shifting to the new improved tech specs, how you do
24 it, the rate you do it, what things you pull out I
25 think is a real -- it presents each individual utility

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1 with their own cost benefit decision.

2 CHAIRMAN SELIN: My impression -- I don't
3 know how general this tech spec point is, but my
4 impression is that a lot of the utilities are looking
5 at the tech specs and say, "Is the one-time cost
6 really justified by the --"

7 MR. GILLESPIE: Exactly.

8 CHAIRMAN SELIN: We can easily end up with
9 even more models, not fewer, if there's no sort of
10 industry wide move, either pushed by us or taken by
11 the industry to say, "By such and such a date, we
12 should really make these transitions." Is that a
13 generic problem or is that special to the tech spec
14 project?

15 MR. GILLESPIE: No, the tech specs
16 dominate the license, so it's generic. What we found
17 was there's many items which have absolutely no safety
18 significance which are sitting in licenses which if
19 you took them out --

20 CHAIRMAN SELIN: You don't need new tech
21 specs to --

22 MR. GILLESPIE: You don't need new tech
23 specs to replace them. It's strictly a removal. It's
24 a "just get them out of there."

25 CHAIRMAN SELIN: Right.

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1 MR. GILLESPIE: And you actually start
2 becoming more and more in line with the goal of
3 achieving the new improved tech specs. That brings me
4 to the process problem that was identified. We knew
5 about it, but it was identified in the public comments
6 to CRGR when they wrote in on the draft policy
7 statement comment on implementation of new improved
8 tech specs. It was exactly on this point. They would
9 like to be able to throw out the tech specs that the
10 new improved tech specs say are not safety relevant
11 and be very consistent with them without needing to
12 take on the whole new improved tech spec program. Our
13 answer back to them was that by the draft policy
14 statement that we had on the street, that the only
15 changes that we would entertain in tech specs were
16 those that were consistent with the improvements to
17 safety and changes that were only going to reduce
18 burden would not be considered. That's what we wrote
19 back. That's what we put in the Federal Register
20 notice.

21 CHAIRMAN SELIN: That's the point
22 Commissioner Curtiss has made.

23 MR. GILLESPIE: Yes. In fact, this is
24 very consistent with the public meeting we had. There
25 was representatives from licensees there who said,

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1 "But the Agency's priority systems for acting on
2 license amendments, in fact, put the non-safety
3 amendments," which I think is correct by the way, "at
4 the bottom." In the distribution then of people, they
5 tend to be gotten to during the period of years rather
6 than the period of months.

7 CHAIRMAN SELIN: But go back to that first
8 one. I mean if you have work which has no benefit but
9 takes resources, presumably those resources come from
10 someplace else. I mean there has to be an impact even
11 on safety, not just on efficiency, if you're taking
12 scarce safety-related resources and you're dissipating
13 them uselessly. How broad do you read the question
14 relevant to safety or how narrow do you read that
15 question? Does it have to be that assuming that
16 resources are infinite, carrying out that task will
17 improve safety or is there the implication that
18 freeing up resources for higher priority items will in
19 itself improve safety?

20 MR. GILLESPIE: There's an implication
21 that freeing up resources for higher priority work
22 will, in and of itself, improve safety.

23 MR. SNIEZEK: Mr. Chairman, that's an area
24 that I know Doctor Murley is examining right now, and
25 I would not be surprised to see a staff change in

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1 direction on that position.

2 MR. GILLESPIE: As a matter of fact, I've
3 got some comments that I was going to close with that
4 Tom called in from their retreat because they're
5 addressing this specific problem right now.

6 CHAIRMAN SELIN: You can't close yet,
7 Frank.

8 MR. GILLESPIE: I know. So, I'm going to
9 save that comment because it's a good one. In this
10 case, Mr. Chairman, your opening comments on process,
11 in fact it is process that was getting in the way
12 here. As being part of NRR for the last several
13 years, in fact our project managers discouraged people
14 submitting these kind of amendments.

15 CHAIRMAN SELIN: These kind, the ones that
16 simplify things?

17 MR. GILLESPIE: That just simplified
18 things and got rid of stuff because we were trying to
19 minimize the amount of resources that were used in
20 maintaining the licenses. So, there is --

21 CHAIRMAN SELIN: NRR resources, you're
22 talking about?

23 MR. GILLESPIE: NRR resources. If there's
24 an overriding problem, I think there's no need to go
25 through the individual tech specs. That was it. It's

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1 our ability to service the licenses and NRR now tells
2 me that approximately anywhere from 30 to 50 percent
3 of the current licensing actions in-house actually
4 fall into the burden relief category. So, there's at
5 least some PMs who have not been ardent enough to stop
6 them from coming in.

7 If there's any insight from the licensing
8 piece, that one's it and it's an insight on process.
9 Also that we're very consistent with the tech specs.

10 CHAIRMAN SELIN: Commissioner Curtiss?

11 COMMISSIONER CURTISS: Could I just ask or
12 maybe introduce for discussion at the upcoming
13 Commission briefing on improved tech specs of the
14 General Counsel perhaps, I take it the procedural
15 framework within which we process tech spec amendments
16 is A, pretty well established and something that we
17 don't have a lot of flexibility in. We go through
18 tech spec amendments essentially and apply the no
19 significant hazards consideration regime to that.

20 But is there any flexibility to the extent
21 that the process problem is one that relates to the
22 legal framework within which we have to operate to
23 address this issue?

24 MR. PARLER: Certainly there would be, in
25 my opinion, flexibility. You'd find the flexibility

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1 in the way that the tech specs themselves are written
2 so that they would have sufficient flexibility in them
3 where such flexibility is appropriate from the
4 technical and the safety standpoint so that you don't
5 have to worry about the amendments. The tech specs
6 themselves, by law under the Atomic Energy Act, are
7 deemed to be a part of the license. If you change a
8 part of the license by amendment, the Congress has
9 told us in the so-called Sholly Amendments to Section
10 189 some years ago how we have to go about that.

11 Having said that, I would make the point
12 that I started out with. In spite of what I have said
13 that provides a framework for what we do, you still
14 have a lot of opportunity to look at the way that the
15 tech specs themselves are worded, what is included in
16 the tech specs and what is included in the flexibility
17 that is there so that you don't have to worry about
18 amendments.

19 COMMISSIONER CURTISS: It is really that
20 latter point that I was trying to get at. We've got
21 a situation here, from what Mr. Gillespie has just
22 told us, where the tech specs in a lot of respects
23 could be improved, either with a wholesale adoption of
24 the new and improved tech specs or with line item
25 improvements or improvements just to accommodate

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1 efficiency rather than safety. Part of the problem,
2 it seems to me, is that the policy of the Agency has
3 been to place the lowest priority on things that
4 appear to be the bulk of the problem, the questions of
5 efficiency and burden. As you pull that thread, I
6 think it, we'd all agree, at some point creates a
7 safety question both for the licensee and us.

8 But in terms of addressing that problem,
9 the legal framework in which we're operating would
10 require us to go through an amendment to the tech
11 specs, either individually or as a package type
12 approach. It might be worth exploring. I'm not sure
13 we have any, but if we do it might be worth exploring
14 whether we have any flexibility in terms of how we
15 address this problem, not just from the standpoint of
16 NRR policy but within the context of the way we have
17 treated tech spec amendments from a legal standpoint.
18 I think our flexibility is pretty well constrained in
19 that area, but --

20 MR. GILLESPIE: I'll give you an example
21 where it didn't work. One of the problems we found is
22 people still have as a condition of their license
23 semi-annual effluent reports. Even though the
24 Commission has issued a rule changing them to annual,
25 the rule had no effect on the licenses. Every

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1 licensee still had to request an amendment to get that
2 out of their license, which is why our focus
3 immediately started -- when you looked at burden
4 reduction, started focusing on licenses.

5 MR. PARLER: Well, that example is a good
6 example of how I was trying to suggest at least in the
7 future that kind of a problem could be avoided, by
8 saying that they shall do such a thing unless the
9 Commission by rule should otherwise provide.

10 CHAIRMAN SELIN: Can I follow-up a little
11 bit on this excellent discussion? I would hope that
12 when you're finished you go even a little further than
13 you've been going to take a look at ways in which it
14 would be easier to get rid of tech specs, license
15 questions that waste resources even if they don't have
16 direct safety implications, but even go a step
17 further. We have argued quite hard in Part 52 that
18 there are benefits to safety of standardization beyond
19 the benefit of any specific claim that there might be
20 three ways to do a job, but choosing any one of the
21 three ways is better than having three people each
22 choose one.

23 You have the same kind of argument on the
24 tech specs and on the idea that there'd be benefits to
25 the licensees as a whole and certainly to the

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1 Commission to have standard tech specs, simpler
2 inspection, more reliable overview. I would hope that
3 you would look at whether it's fruitful to try to take
4 some of these broader approaches, as Commissioner
5 Curtiss suggested, ways to gain improvements so that
6 you don't have to do them license by license or tech
7 spec at a time, ways to give some benefit to reducing
8 resources that have no impact on safety. The judgment
9 that overall those would improve safety, ways to get
10 more standardized tech specs or other procedures, even
11 though in a specific case you might say, "Well, that
12 one doesn't benefit us." If all the plants had the
13 same way of doing something, that would just make life
14 not only easier, but more reliable and therefore
15 presumably safer for us.

16 MR. GILLESPIE: Yes, that's exactly where
17 my closing will cover what Tom Murley is proposing to
18 do.

19 CHAIRMAN SELIN: Okay.

20 MR. GILLESPIE: Those are the exact things
21 of what he's going to touch upon.

22 COMMISSIONER ROGERS: Are you leaving
23 insights now?

24 MR. GILLESPIE: I was going to leave
25 licenses and go on to the risk task on page 18.

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1 COMMISSIONER ROGERS: I just had a
2 question. What was the point on page 11 of consider
3 graded approach to review committee functions? What
4 review committees do you have in mind there?

5 MR. GILLESPIE: Let me ask Cecil Thomas
6 to --

7 MR. THOMAS: Most of the contemporary
8 licenses have three different review committees, the
9 within the plant operation review committee, PORC or
10 SORC depending on the plant, and off-site or
11 corporate, and also an independent review group
12 typically called ISAC. The problem that we
13 encountered was there was no opportunity or provision
14 for gradation in what they looked at. The tech specs
15 suggested and required that they look at everything
16 with the same degree of zeal regardless of its safety
17 significance.

18 COMMISSIONER ROGERS: Okay. All right.

19 MR. GILLESPIE: Some comments we got back
20 in this area were you're basically putting so much
21 paper and procedure changes and everything else
22 through these committees, there's a chance we're just
23 getting rubber stamping and we're not getting safety
24 oversight entirely as we expected.

25 COMMISSIONER CURTISS: I just have one

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1 question before you leave licenses. In your overviews
2 and in the more detailed analysis of the Seabrook
3 license, I was struck by one of the comments that I've
4 had a particular interest in since October 20th, 1988
5 actually. On page 16 of the attachment, if you don't
6 have it I'll just read it, your recommendations
7 include the recommendation that we reconsider the
8 practice of elevating Commission policy statements,
9 regulatory guides and other non-requirements to the
10 status of legal requirements without following the
11 disciplined rulemaking process.

12 Now, since I have been here, from OGC's
13 perspective, they have consistently indicated whenever
14 a policy statement comes before the Agency or a reg.
15 guide or any of these non-rulemaking vehicles, only
16 two ways around here to impose requirements,
17 regulations and orders. All of these other things
18 that we do around this Agency, generic letters or
19 50.54(f) requests or policy statements or so forth,
20 lawyers have been religious in saying, and
21 consistently so, that those are not legally binding
22 requirements.

23 Having said that, I've also gotten the
24 impression that -- not from OGC but within the Agency,
25 that that is more often cited as kind of a mantra

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1 rather than something that has been really -- that
2 we've come to appreciate and adopt as a policy, that
3 if we want to impose requirements, we impose them
4 through regulations or orders. For that reason, I
5 guess I'm troubled to see -- I think it's a correct
6 finding, but troubled to see that we haven't rooted
7 out the practice, what you describe here as the
8 practice of imposing requirements in a fashion that
9 has a number of disadvantages. First and foremost,
10 the process that is employed, unless it's a rulemaking
11 process, doesn't involve the opportunity for public
12 comment. All these things that we impose as
13 requirements don't allow the public to step in and
14 say, "We think this is an area where you even need to
15 go further or not far enough."

16 Secondly, it doesn't allow the licensee to
17 comment in the context that they could, for example,
18 in an order to request a hearing, an immediate hearing
19 if they so desire. There are all sorts of attendant
20 disadvantages to that process. In my view, not the
21 least of which is that the kind of disciplined Agency
22 evaluation, the kind of Commission involvement, the
23 kind of staff involvement for that matter that goes
24 into a regulation or an order just doesn't attend the
25 process of imposing requirements through all of these

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1 other vehicles.

2 I think you've accurately characterized
3 the practice around here. It's been frustrating and
4 disappointing to me that notwithstanding what the
5 lawyers have consistently told us, this practice has
6 essentially gone on unabated. It would be my hope
7 that as you consider the recommendations that come out
8 of this process that we can put this question to bed
9 with this effort in a formal and final way so that
10 this practice that we have adopted that has grown up,
11 that has grown by accretion if you will over the
12 years, can in fact reflect what the lawyers have
13 correctly told us is the framework within which we
14 ought to operate. If we intend to impose
15 requirements, it ought to be done through regulations
16 or orders and root out the problem that you've
17 identified here.

18 So, in this particular area, I don't
19 expect a response unless you wish, I look forward to
20 the recommendations that you have to make on how we
21 turn around this awful big ship because we have headed
22 in that direction for so many years and, as we've
23 discovered here and so artfully presented, created a
24 problem.

25 MR. SNIEZEK: I'd like to address that,

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1 Commissioner, because as you know I was very deeply
2 involved in the backfit rule back when we went in the
3 backfit rule and the backfit rule was put in place to
4 correct that process. It was a rule imposed upon the
5 staff basically that the staff does things right in a
6 disciplined manner. I think we've been very
7 successful in implementing the backfit rule on the
8 generic basis, the CRGR, the better disciplined
9 generic requirements. There is no question that it's
10 just orders and licenses and regulations which legally
11 binding rules apply.

12 However, like I mentioned before, is when
13 an inspector asks a question, if a licensee reacts as
14 if it's a binding requirement, that's what that means
15 in that write-up. I remember several years ago when
16 I was giving the industry briefings on what the
17 backfit rule meant and telling the industry to have
18 some backbone and stand up when they thought they were
19 being unduly ratcheted and they're not standing up
20 when they're being unduly ratcheted by our inspectors,
21 and I blame them as much as our inspectors, I told
22 them, "You do not have to do what our resident
23 inspectors tell you to do. Listen to them. They've
24 got a lot of good information they pass on. But if
25 you don't believe it's the right thing to do for the

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1 safety of your plant, please don't do it." Now,
2 that's where the industry has got to pull their act
3 together also because our inspectors are getting paid
4 to have a questioning attitude, why are you doing
5 things, are you considering this? They're not mere
6 compliance inspectors, they are safety inspectors and
7 when they ask those questions, if a licensee reacts as
8 if the utility has to do it, you get the results that
9 are laid out in that discussion. So, it is not just
10 the NRC, it is also the industry that has to get their
11 act in order.

12 COMMISSIONER CURTISS: I agree with you.

13 CHAIRMAN SELIN: But I think there are two
14 points. I generally associate myself with
15 Commissioner Curtiss' remarks, but even if you did
16 everything he said, you still would have the problem
17 you're talking about.

18 MR. SNIEZEK: Yes.

19 CHAIRMAN SELIN: In other words, what we
20 have are two things. One is documents which have
21 taken on a status beyond that which they were
22 intended, temporary generic letters which ten years
23 later are read as if they were regulations is the most
24 outstanding example. Then the second is even if you
25 get all the documents straight, there's what happens

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1 in the field.

2 What I meant in the opening remarks in my
3 comments on your original charter was it's not enough
4 to get the documents right, we have to look at what
5 really happens at the plants. I think they're
6 separate points and I would encourage you to look at
7 both of them. One is to rationalize the policy
8 statements, generic letters, et cetera, to the way the
9 Commission is supposed to do or the Agency is supposed
10 to do business. The second is not instead of, but in
11 addition, concentrate on that point you're making,
12 which is even if all the documents are perfect, if
13 people act as if they're proconsuls and not inspectors
14 or advisors, we'll have problems out there.

15 MR. SNIEZEK: And that second part is the
16 difficult part. The first part is relatively easy.

17 MR. PARLER: Mr. Chairman, may I make
18 three points at an appropriate time?

19 CHAIRMAN SELIN: Is this an appropriate
20 time?

21 MR. PARLER: It's an appropriate time for
22 me, but what's an appropriate time for me is not
23 always an appropriate time for the Commission and I
24 just didn't want to move in the wrong direction.

25 CHAIRMAN SELIN: Please go ahead, Mr.

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1 Parler.

2 MR. PARLER: There's another way that
3 requirements can be imposed and that is license
4 conditions on the technical specifications. That's
5 point number one.

6 Point number two, the lawyers that are
7 saying these things are really basing their advice on
8 lawyers that happen to be judges, appellate judges in
9 their decisions. It is fairly well established that
10 policy statements are not legally binding. The
11 Administrative Conference of the United States, in
12 response to the widespread practice of in effect
13 having things that were not rules made legally binding
14 address this issue and put out a recommendation last
15 year remaining everyone of what I just said.

16 The third point, which is perhaps the most
17 important one, at least for reflection, is this. If
18 the goal is to have non-prescriptive performance
19 regulations and if the safety review or the safety
20 position is going to largely depend on guidelines of
21 some kind implementing that regulation, you have the
22 problem that you're talking about that you have to
23 deal with because the guideline itself does not have
24 the force and effect of law. It's not a legal
25 requirement.

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1 CHAIRMAN SELIN: It's one of a number of
2 ways in which one could carry out the regulation. Is
3 that the implication?

4 MR. PARLER: The implication is that some
5 way has to be found in a performance regulation to
6 bridge the gap that we're talking about if indeed they
7 want a clear line of distinction between those things
8 which are legally binding and those things which are
9 not in which there is flexibility to follow a
10 particular approach. If you have guidance that is
11 given to a performance-oriented rule and the guidance
12 is rather prescriptive, your options become rather
13 limited.

14 Those are the three points I want to make
15 and I thank you very much.

16 CHAIRMAN SELIN: Thank you, Mr. Parler.

17 COMMISSIONER REMICK: Jim, I'd like to
18 respond to your comments and I agree that the way
19 you've indicated, people perhaps overreacting to
20 legitimate questions, is one way that people go beyond
21 what is really required. One might legitimately argue
22 that power reactor licensees, because they have large
23 resources, they have licensing personnel, should know
24 that it's regulations and orders and so forth that are
25 binding and not reg. guides. But we have to remember

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1 there are 500 to 1,000 people in each of those units
2 and not everybody understands that. I realize we're
3 talking about power reactors in your study, but if we
4 expand that to material, let's say the non-power
5 reactor licensees and material licensees, where
6 sometimes they don't have that, they don't know who
7 the NRC is, they don't know if the NRC comes from the
8 White House or not. When an inspector comes around
9 and speaks something, it must be the gospel and we
10 must have to follow it.

11 So, although power reactor licensees are
12 somewhat different, not everybody understands that
13 reg. guides and so forth aren't requirements. And all
14 of us from time to time use reg. guides as if they are
15 requirements, even though we know better. We speak
16 about them as if they are requirements. So, I don't
17 think we can argue that everybody understands and it's
18 their fault if they don't stand up.

19 MR. SNIEZEK: I don't take issue with your
20 comments at all.

21 COMMISSIONER REMICK: One other, if I may,
22 on tech specs before we leave the licensing. Do you
23 foresee that there are certain power reactor licensees
24 out there that might be resistant to go to the revised
25 tech specs if it would be to their disadvantage to do

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1 it?

2 MR. THOMAS: Yes.

3 COMMISSIONER REMICK: Yes.

4 CHAIRMAN SELIN: But other than the one-
5 time cost of getting there?

6 MR. GILLESPIE: Yes.

7 COMMISSIONER REMICK: It would be imposing
8 new requirements on --

9 MR. GILLESPIE: The older facilities, in
10 which case having picked Surry as an older facility
11 for us to look at, their existing tech specs which we
12 allow to exist are significantly less stringent than
13 the new improved tech specs and would, in fact,
14 probably give them second thoughts.

15 MR. SNIEZEK: Let me mention at this time
16 though, our group isn't studying that aspect of it.
17 I know NRR, Tom Murley specifically looking at that
18 with the potential that if you get a real old timer
19 licensee that's been in existence for a long period of
20 time and they've got very simple tech specs, they may
21 be able to convert to the standard tech spec format
22 without putting all the new requirements in because
23 that is human factored and is easier for the operators
24 to understand. So, NRR is looking at that aspect
25 right now.

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1 CHAIRMAN SELIN: I didn't understand what
2 you said.

3 MR. SNIEZEK: In other words, you've got
4 a plant. Let me just pick a name, Big Rock vintage
5 plant. Very simple tech specs. There may be a lot of
6 things in their tech specs -- that are not in their
7 tech specs that would be in the new standard tech
8 specs. Even though they have some of the same systems
9 that are covered in standard tech specs, it's not
10 covered in their existing tech specs. They may be
11 able to convert, Tom is looking at that, to the
12 standard tech spec format for the ease of the
13 operators in establishing the basis for the
14 requirements without having to upgrade their tech
15 specs to put in all the new requirements that are in
16 the standard tech specs.

17 CHAIRMAN SELIN: The implication in the
18 standard tech specs was not to get everybody up to a
19 higher level of rigor, but to have a standard format
20 as opposed to going through case by case without a
21 backfit analysis enforcing safety. Is that correct?

22 MR. SNIEZEK: That is more what the
23 purpose is becoming.

24 COMMISSIONER REMICK: But I would add, and
25 I say it respectfully, for a license reviewer, they

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1 would probably have great difficulty avoiding the
2 attempt to add those things in. It would be very
3 difficult not to want to add those in.

4 MR. SNIEZEK: I understand that. But if
5 they do, they would do it pursuant to the backfit
6 rule. I'm very doubtful that many of those would pass
7 the backfit rule test.

8 CHAIRMAN SELIN: Mr. Sniezek, would you
9 continue?

10 MR. GILLESPIE: Let me say that this was
11 a license-specific look at the Seabrook license and
12 some of the things that were incorporated into their
13 license as conditions of their licenses that we found
14 resulted in that comment will only result at the
15 initial licensing of a facility, which means I guess
16 the next candidate we have to be careful on is Watts
17 Bar.

18 (Slide) Going on to risk-based
19 regulation --

20 CHAIRMAN SELIN: What chart are we up to
21 now?

22 MR. GILLESPIE: Page 18. This was a far
23 more fuzzy, squishy topic to try to get involved in.
24 A year ago when I heard the presentations on this, it
25 is now a year ago, on risk-based regulation and people

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1 saying, "Have a pilot plant," and they said, "Well,
2 have a pilot plant and do what?" I wasn't sure what
3 we'd have a pilot plant to do. Things over the last
4 year have gelled a lot in the industry and I think in
5 the staff where we're starting to get some definition
6 on what it is, how it would be applied, what is risk-
7 based regulation. Again we're rapidly getting license
8 focused. There is very little in the regulations that
9 prohibits having a risk approach versus a prescriptive
10 approach. It's there if someone can develop the
11 implementing guidance to do it that we'd also find
12 acceptable.

13 In looking over the work that's been done
14 in the past by the NRC staff, the NRC in fact as an
15 agency basically has established the technological
16 base for risk assessment use in the area of nuclear
17 power and virtually everyone else has spun off of our
18 task. We've looked at some potential applications
19 which we've classed as type A, type B and type C. We
20 had to get down to the nitty gritty of what are you
21 applying risk to to get some understanding about what
22 it is you have to do to get there, how important is it
23 to safety.

24 So, let me jump rapidly to how do we come
25 up with three categories? It could be four

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1 categories. For us, we classed them in three and
2 what we saw going on around us and where we thought
3 the technology was at and things like the IPE reviews
4 which are currently going on now and the staff are at.

5 CHAIRMAN SELIN: What chart are you on?

6 MR. GILLESPIE: Page 20. Since we focused
7 early on in the rule area on graded QA, and PRA or
8 risk approaches is a way of grading and grading on
9 safety, this became an obvious candidate to go into a
10 little deeper. People were very interested in tech
11 specs also, so we also started looking at tech specs.
12 As we started looking into things, we got an
13 opportunity to see an early draft of some of the work
14 going on in support of a maintenance rule, of which
15 one option is to have a risk base.

16 The first category we saw was if we were
17 going to try to look at where risk would get
18 introduced into actual operations and have a benefit
19 in a much narrower term, it would probably be
20 important that we don't have to do an absolute
21 detailed review of every number in a PRA. In our
22 view, going to graded QA in support of the maintenance
23 rule, probably the review we're doing of the IPEs
24 right now is good enough because it's a very coarse
25 kind of cut in gradation.

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1 You could use some generic failure data.
2 You wouldn't have to have an immense background of
3 plant-specific failure data and in scanning across the
4 BWR-6 reactors, the IPEs that were in-house, it would
5 seem that you could cover 97 or 98 percent of the risk
6 of the facility with something less than 200
7 components. Now, just comparing 200 to some people
8 who will come in and say, "But their Q list is 10,000
9 items long," there's a significant disparity there,
10 which led us to believe that potentially a risk-based
11 approach to QA and classing things for QA where what
12 you're doing is somewhat proportional to the
13 importance of the item, component, the system
14 component or part.

15 We've started differentiating and, in
16 fact, Appendix B differentiates parts from components.
17 A simple example would be the key in a keyway, the set
18 screw and O ring, normal repair pieces that go in and
19 out all the time. How much of a pedigree do you need
20 on it if you look at its failure rate? If it's
21 failure mode is that it's going to leak and in fact
22 you conduct a surveillance, even a visual inspection
23 of the particular pump or flange monthly, and if it
24 leaks it still doesn't interfere with the pump's
25 ability to pump sufficient quantity to do its job,

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1 that should not be a \$300.00 O ring or \$300.00 set
2 screw.

3 Now, Appendix B allows for an engineering
4 evaluation to make that finding. You don't want to do
5 that engineering evaluation actually every time, so
6 you need to introduce some structure which says,
7 "Maybe you need some classes of parts and components."
8 And we've kind of gone that way in our thinking on how
9 risk-based approaches to QA would affect both
10 procurement and the oversight of traditional QA in the
11 facility itself. So, it really bears upon the cost of
12 buying things and the amount of labor of oversight
13 you're providing on maintenance and testing.

14 We saw it as being not the same, but at
15 this point I'll say with the little bit we've seen on
16 the supporting documentation for the maintenance rule,
17 very much in the same vein. In fact, if someone is
18 doing support for the maintenance rule right now on
19 how you'd class things in maintenance classes, I'd
20 suggest they need to be slightly more farsighted and
21 maybe think that if I'm going to have classes, one set
22 of classes would be nice and there may be another
23 program called quality assurance that may have some
24 close kinship to those classes.

25 That's where we see some near-term doable

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1 things in what we call type A.

2 COMMISSIONER CURTISS: Let me just ask,
3 since Mr. Sniezek is here at the table, I assume that
4 thinking is going on in the context of developing the
5 guidance that Frank just alluded to?

6 MR. SNIEZEK: That thinking really has to
7 go on on the industry side on a generic basis. It's
8 allowed under the NUMARC guidelines and be allowed
9 under our reg. guide. It would be very supportive,
10 but we don't have any details in place at this time.
11 The staff would have to be receptive of that type of
12 thing when we do our inspections out there.

13 COMMISSIONER CURTISS: Okay.

14 MR. GILLESPIE: In fact, NUMARC wrote in
15 and they're thinking of them right now in the same
16 light. They got me a copy of that letter too.

17 COMMISSIONER ROGERS: Could I just ask a
18 little question here on what you really mean by
19 qualitative risk insights. Quantitative versus
20 qualitative sometimes have different meanings to
21 different people. Risk itself, somehow or other,
22 implies to me that you have some measures and numbers,
23 but maybe not. The qualitative and risk I would
24 interpret more as rough cuts, very big differences but
25 still somewhat based on values of some kind rather

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1 than just guesstimates.

2 MR. GILLESPIE: Yes.

3 COMMISSIONER ROGERS: Okay.

4 MR. GILLESPIE: I was trying to be
5 concise.

6 COMMISSIONER ROGERS: That's fine. I'm
7 happy. I don't know if anybody else is.

8 MR. GILLESPIE: Yes. Where I'm coming
9 from is --

10 COMMISSIONER ROGERS: I don't understand
11 what you meant by it, but I think --

12 MR. GILLESPIE: No, absolutely, and that's
13 why we say in here that generic data in many cases,
14 which many PRAs have to incorporate in, is good
15 enough. When you look across the categories of
16 components and there's some kind of logical break
17 points, there's certain components that in the
18 calculation are very, very important, then it comes
19 out that way.

20 COMMISSIONER ROGERS: Yes.

21 MR. GILLESPIE: If you're only looking at
22 having something like three classes, something that's
23 gold plated in quality assurance bases exactly as it
24 is now, which things do come into, something slightly
25 less and something where commercial grade equipment,

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1 in fact there's some evidence to show that commercial
2 grade equipment is just as good as safety grade, it
3 just doesn't have the paper to follow it, there's
4 three classes. In doing a coarse cut, you'd use the
5 quantitative risk insights, but you then would have to
6 use some qualitative judgment as to where you'd be
7 drawing the line. Also, parts. Parts are not modeled
8 in a PRA. PRAs look at systems, they look at
9 components, major components and sometimes even group
10 those. You have to use some engineering judgment on
11 the parts application to the function of the
12 component. That is engineering judgment and there's
13 no other word you can put on that really other than
14 qualitative. It's looking at the set screws and the
15 keyways and the fasteners. If the bolt is fully
16 qualified, does the lock washer have to be? Someone
17 has to sit down and at least on a one time basis ask
18 that question of everything you start putting into
19 these kind of approaches.

20 So, you're right, absolutely right, it's
21 a cross between the two but it is absolutely
22 quantitatively based as the starting point.

23 (Slide) The second category that we would
24 put things into is page 22, category P. The
25 requirements here would be an average depth of PRA

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1 modeling. By average for category 2, the best
2 insights we had -- Mary Drouin is on our team and she
3 was very much involved in reviewing the IPEs. Our
4 hope here is that what we mean by average is about 80
5 percent of the IPEs should be good enough.

6 Extensive review in selected areas. If
7 you were going to apply to a license amendment, you're
8 going to need more review and more detail in the area
9 of the specific amendment, but you need not
10 necessarily review every piece of the PRA to see how
11 it fits in.

12 Updating becomes a big problem. I was
13 involved with the former ISP program, the integrated
14 schedule program, and one of the big complaints that
15 were on those programs was the need for the Agency to
16 be deeply involved with the PRA, tech specing the PRA,
17 the change mechanisms to the PRA and then how we'd
18 inspect it, that the NRC was getting too involved with
19 the utility's decision process. In both A and B, we
20 would not see the Agency needing to basically make the
21 PRA part of the license. It probably does not fit
22 people's general interpretation of a living PRA in
23 that you have to keep it up day to day. These kinds
24 of things could probably be done very well as long as
25 they kept it up refueling outage by refueling outage

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1 when major changes, if they take place, do take place
2 in a plant.

3 So, we're trying to kind of give ourselves
4 some insights on applications versus degree of
5 difficulty both in the industry's part and our part
6 for those applications.

7 (Slide) Category C, page 23, is kind of
8 something I don't know that anyone will reach. This
9 is where your computer become safety grade and your
10 tech specs are automated and it recalculates with
11 every change in your tag-out log and process
12 parameters. Quite honestly, having looked at some of
13 the international areas, technologically we're not
14 ready to be there yet. I think it's a goal it's nice
15 to have out there. It would be nice for people to
16 work towards it. We've done some hard looking on
17 what's going on internationally. Mary went down to
18 visit at Laguna Verde and the Mexican Regulatory
19 Authority to see what their thinking on it was. This
20 is out there a ways.

21 We've also done some looking and there's
22 some middle grounds for tech specs. In particular, we
23 developed what I'll call a hypothesis and then looked
24 around to see if anyone was doing it and we found out
25 that there was a Scottish plant, Torness, which has

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1 risk-based tech specs which were manual. They were
2 not dependent on computer. What we had was a premise
3 that said if you took a tech spec and created a
4 configuration management for it that said, "Here's the
5 standard tech spec, but if you control your
6 configuration as a plant this much, you could extend
7 that standard tech spec, the LCO or AOT, let me just
8 say from two days to four days, and if you went this
9 much further and controlled it, you could take ten
10 days to get it done." What you're doing is focusing
11 on controlling the day to day risk profile of the
12 facility itself, which would be very positive for
13 safety, as I think has been technically shown in many,
14 many places.

15 At Torness, what they have is 200 line
16 items and 200 charts which allows within the tech
17 specs that if they control to this level or to this
18 level, it gives them automatically in the tech spec
19 that stretch. They've been doing this since 1978.
20 Now, they have a PC there for reference, for looking
21 up the tables, because 200 tables was a lot and each
22 table has three levels. In the write-up I was reading
23 it said, "In order not to have the computer need to be
24 nuclear grade, we also have a hard copy of our 200
25 charts for the operator." But they've never found a

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1 computer to go wrong.

2 Basic simple database, risk based, 200
3 charts with three restrictions each is not
4 overwhelming and we saw that as kind of an
5 evolutionary step starting with the new improved tech
6 specs. The new improved tech specs become an
7 important starting point because they have generally
8 be optimized within systems. Not across systems, but
9 within systems. When you start getting into PRA or
10 risk approaches, you're taking the next step, which is
11 across systems, ensuring I have this capability,
12 allowing me to back off on that capability.

13 Another plant which is Heysham --

14 CHAIRMAN SELIN: How do you get the
15 defense in depth concept in there where you're
16 basically saying it's not enough to do a single
17 calculation, but we set subtargets for different
18 elements in the sequence?

19 MR. GILLESPIE: It really covers defense
20 in depth by the specifics of the configuration you're
21 managing.

22 CHAIRMAN SELIN: I see.

23 MR. GILLESPIE: In other words, you're
24 actually saying, "You can have ten days to do this,
25 which is three times normal, but you better first jog

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1 this pump and make sure it operates and jog this pump
2 and make sure it operates and you can't have a
3 thunderstorm to have a lightening strike for loss of
4 AC power. And if you do, then you have to get your
5 diesel up and running and be prepared for it."

6 So, through managing the configuration of
7 the rest of the plant, you actually maintain defense
8 in depth. It's a method of avoiding unnecessary
9 shutdowns and having the decisional authority at the
10 plant but technically already agreed to with the
11 regulator itself.

12 The next level was the Heysham plant,
13 which I think people have heard of before. No one
14 ever heard of Torness, but we dug that one up.
15 Heysham has the same thing but they've automated it a
16 little more. They're more dependent on actual
17 calculations and they have to have more faith then in
18 the computer and software and what it's telling them.
19 That's kind of the next evolution. Then there's
20 another plant in Sweden, Nordic, which even goes yet
21 further in the automation.

22 The difference in the U.K. and here, I can
23 highlight, is the tech specs in the U.K. belong to the
24 utility, they don't belong to the regulator, which
25 gives the utility a lot of freedom on what they want

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1 to do and try with their tech specs, as long as they
2 stay within the regulatory principles that NII and the
3 Health and Safety Executive enforce. So it makes it
4 easier for them to try things like this.

5 So, we see that even a gradation in
6 approaching risk-based tech specs by plants who are
7 looking at it and demonstrating it and actually doing
8 it, it could be available.

9 COMMISSIONER CURTISS: Frank, could I
10 pursue this line in a little bit more detail?

11 First, can you summarize your reaction
12 from the visit to Laguna Verde? And where would you
13 classify their program in your ABC classification?

14 MR. GILLESPIE: Okay. If I could have the
15 -- I think it's the first back-up slide --

16 COMMISSIONER CURTISS: It looks like you
17 were prepared for that question.

18 MR. GILLESPIE: There it is. Would you
19 pass that around, Cecil? And I have a hard copy.

20 Yes, I kind of expected that.

21 Laguna Verde and the U.S. industry are
22 equal. What we found is they're doing some -- what
23 we're trying to do in this picture is kind of give a
24 sense of, as best we could judge, a relative nature of
25 where people are at and what the incremental changes

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1 are.

2 Laguna Verde is -- the Mexicans have done
3 a lot of thinking. The Mexican regulatory authority
4 is very much the driver in wanting to use the PRA, and
5 the PRA was basically done to a degree consistent with
6 our IPE letter and our generic letter on IPEs and they
7 are right now pursuing different avenues in
8 discussions on how to use it, but as of yet nothing
9 has been implemented at the plant.

10 COMMISSIONER CURTISS: Okay. Let me
11 continue, then. In your evaluation in more detail you
12 said that, based on your discussions with various
13 industry representatives, "we sense that there is not
14 strong support to go further in applying risk-based
15 optimization to the standard tech specs at the present
16 time."

17 Actually, two themes I'd like to pursue.
18 There has been some rather compelling work done on the
19 allowed outage time issue, AOTs. Bill Vessely at SAIC
20 has done a lot of the seminal work in that area. I
21 and I think Commissioner Rogers, in fact, have had an
22 opportunity to talk with him in some detail about
23 what's going on in that area.

24 It strikes me, going back to your earlier
25 point about what could we do a pilot program on -- I

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1 really have a two-part question -- one, would that be
2 a reasonable arena in which to do a pilot program?
3 And two, are you sensing a negative reaction on that
4 score from the industry? And if so, why?

5 MR. GILLESPIE: No. No and yes.

6 COMMISSIONER CURTISS: No to which?

7 MR. GILLESPIE: Let me be very, very
8 specific. Remember, that package is now four weeks
9 old and things have been moving rapidly. I have a
10 copy, actually, that EPRI has provided and it's an
11 EPRI-- NUMARC is involved -- effort on risk
12 applications to tech specs. And we had discussed with
13 them some of these things and, in fact, as part of
14 their program they are going to be proposing they try
15 this at two facilities. The nice thing about the
16 approach --

17 COMMISSIONER CURTISS: An AOT pilot,
18 you're talking about?

19 MR. GILLESPIE: A pilot on risk-based tech
20 specs. And let me address your -- now that I've
21 addressed your second question, let me address your
22 first one, where that was coming from.

23 The new standard tech specs, the new
24 improved standard tech specs, took a very hard look
25 and removed a lot of the LCOs within systems and did

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1 a lot of clean-up within systems and extended many,
2 many things, so they're very beneficial. And a
3 comment -- some of the comments we got back in verbal
4 discussions with people indicated that that was so
5 beneficial that until they took full advantage of that
6 they weren't sure how much further they would want to
7 go with risk-based tech specs. Because, and this is
8 in the LCO AOT area, if all you do is cause something
9 to get delayed from two weeks to a month to get it
10 done and they still have to do it, they were quite
11 pointed in saying if they still have to do it they
12 can't lay anybody off. It doesn't affect labor costs
13 and that was the comment we got back, that the new
14 standard tech specs actually go a long way to allowing
15 enough time to avoid an unnecessary shut-down, that
16 they don't have to keep people standing on shift to do
17 things, that that was a very great benefit.

18 I'll be quite honest. The industry people
19 we've talked to have made it very blunt. If it
20 doesn't affect labor or procurement costs, it's not on
21 the top of their list.

22 COMMISSIONER CURTISS: Well, maybe if you
23 can provide a copy of the EPRI communication it would
24 have more detail.

25 MR. GILLESPIE: Oh, yes. I'd be happy to.

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1 COMMISSIONER CURTISS: Not now, but after
2 this meeting.

3 MR. GILLESPIE: On the other side, there's
4 some enthusiastic supporters of which Herschel Spector
5 is one. He's very active with the BWR owners group
6 and they've got some initiatives right now going on on
7 risk-based topical reports and things that will be
8 coming in, in particular on motor-operated valves and
9 risk-based support to the maintenance rule and
10 prioritizing maintenance work orders and some other
11 things. So, it's kind of a mixed bag.

12 CHAIRMAN SELIN: You just said in
13 different words what you said in your third progress
14 report on page 2 about "this brings us to the question
15 of leadership in the advancement of risk technology."

16 MR. GILLESPIE: Let me go back to my
17 opening statement. I now have a NUMARC letter in hand
18 that says they're now going to have a working group
19 which is going to be focusing specifically on this.
20 If nothing else, our group has brought a focus.
21 There's so many different things going on that there
22 needs to be some leadership and central focus to
23 what's happening and there has to be a goal.

24 I'll go back to my earlier frustration.
25 "Well, we'll have two pilot plants for risk-based

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1 regulation." I didn't know what that was.

2 (Slide) Now if I could go to the back-up
3 slide number 2 --

4 CHAIRMAN SELIN: Why do I have a feeling
5 we're shills playing right into -- what's back-up
6 slide number 3, Frank?

7 MR. GILLESPIE: No, no. I only had two.
8 I only had two.

9 This is our current short-cut definition
10 of risk-based regulation as seen from a license
11 perspective. Maintenance, quality assurance, ISI/IST,
12 tech specs -- and tech specs, Commissioner Curtiss,
13 because I see a difference between LCO and AOTs in
14 surveillance intervals, I split into two topics -- and
15 design/FSAR because those things that come out of the
16 tech specs to an extent are going to be put in the
17 FSAR or somehow governed by a 50.59 type process when
18 they get split off, these are now specific areas and
19 specific functions where a risk-based approach may in
20 fact prove fruitful.

21 Adding a section to NSAC 125, which is a
22 guide tome on support of 50.59, on what are the
23 acceptable ways, level of detail necessary to use risk
24 arguments to make the finding that you have not
25 introduced a new accident, you have not increased the

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1 accident frequency and you have not reduced the
2 margin, risk just fits very nicely into answering
3 those questions, very nicely.

4 Similarly, in categorizing groups in
5 maintenance, categorizing groups in quality assurance,
6 ISI/IST is already being approached by ASME, which we
7 would be in a responsive mode to in 50.55(a). And
8 tech specs is now developing more and more interest
9 because in the approach taken at a place like Torness
10 on LCOs and AOTs you in fact could take a similar
11 approach on surveillance intervals and you could say,
12 "If I give up this surveillance interval or do these
13 less, I could create a surveillance configuration
14 approach" much as Herschel on his win-win situation he
15 had talked to the Commission about would do.

16 The theory, the practice, the technology
17 is there to do it. The industry has to decide if they
18 feel it's in their interest to do it and would we be
19 receptive.

20 COMMISSIONER CURTISS: In fact, let me
21 pick up on those two points and conclude on this line.
22 I share the view that this is an area where the
23 industry needs to exercise the leadership and define
24 what can be done and what they're interested in
25 pursuing.

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1 At the same time, picking up on your
2 second point, I take it from your remarks here today
3 and the general discussions that I've had with many of
4 you over the past several months that the Agency and
5 the staff, if that leadership is demonstrated, would
6 be enthusiastic about exploring opportunities as they
7 are presented by the leadership of the industry.

8 MR. GILLESPIE: Jim has to speak for the
9 staff. My group is already enthusiastic.

10 MR. SNIEZEK: I believe the staff would be
11 receptive. We don't want to have to drive them to do
12 it and force them to do it. They've got to have an
13 interest in doing it and I think we would be very
14 receptive, because it's the right way to go.

15 MR. GILLESPIE: I think what we have to
16 do, and this is why I have a type A, B, and C, is we
17 do have to do something in the area of defining how
18 much review do we expect to have to do of a PRA for
19 each application, how much detail or additional work
20 would we expect. So I think it's not only be
21 receptive down the road, but not to get in a "bring me
22 another rock" mode. You kind of have to issue the --
23 agree upon the philosophical approach on which bin you
24 put them in up front. I think that's going to be
25 very, very important to the receptivity so that we're

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1 not arguing over level of detail three years from now.

2 COMMISSIONER CURTISS: I just had one
3 final question on the topic that we're on.

4 NPRDS, as you take a look at what NPRDS is
5 doing today and how well it is equipped to manage the
6 movement in the direction that you've described here,
7 obviously one of the points of distinction between
8 your categories A, B, and C is how much plant specific
9 information you have, whether you use generic default
10 values or what-have-you in the calculation.

11 Is it your sense that NPRDS is moving
12 forward commensurate with the focus that you've
13 described in this area, that it is capable of
14 providing the database, if you will, to support in a
15 coterminous way the movement in this area?

16 MR. GILLESPIE: We have not looked at
17 NPRDS. I'm not going to be in a position to say
18 whether it could or couldn't and I think this is part
19 of who's responsible for getting it done. You'll
20 notice that the drive is to plant-specific data the
21 more technically complicated the decision you're
22 trying to make, which gets you away from NPRDS.

23 COMMISSIONER CURTISS: Right. I agree.

24 MR. GILLESPIE: But the initial uses, in
25 fact, can fall back on generic data. In fact, generic

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1 data could allow you to deal with the question of
2 uncertainties in a class of plants. And this gets to
3 something the Chairman said earlier, that there is
4 some value in consistently approaching for similar
5 designs the same thing, and that if all the
6 Westinghouse four loop plants pooled the insights from
7 their IPEs, even though some might have a slightly
8 more important frequency of a particular accident than
9 another, but came up with a consolidated list for the
10 Westinghouse four loop plant, "here are the important
11 systems that cover 98 percent of the risk," there
12 would be a benefit to that. Because, anything that
13 was missed in a very brief review of one PRA you would
14 be offsetting and we wouldn't be arguing over, well,
15 why did this plant have that system in and this plant
16 have that system out.

17 This is not difficult to do. All the data
18 is in and available. It's available to us. It's
19 available to the industry. You may go from 150
20 systems to 153, but you'd have certain things covered
21 in a relatively conservative way for completeness, and
22 so we're in a position I think to do some things in
23 this area.

24 In wrapping up, let me go back to the
25 licensing area where we found the problem was process.

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1 We could examine every license in the country and come
2 up with the list of 24 things that look like they
3 shouldn't be there, but the licensee has to actually
4 request the amendment.

5 Although we haven't completed everything
6 we're doing, this became I think real obvious to Tom
7 Murley and the steering group as we've been keeping
8 him up to date. And in fact, Tom has personally been
9 very interested in what we're doing in this area and
10 he has recently -- last night he called it in,
11 although I kind of knew he was thinking about it
12 because we had talked about it over the last several
13 weeks -- he's establishing a small group within NRR
14 led by an SES manager in order to specifically review
15 and process license amendment requests in this burden
16 category. And here it is the management of how you do
17 it. You can do it in a resource intensive way or you
18 can do it reasonably efficiently.

19 If you get something in and you look at it
20 and you say, "Gee, this is plant specific but it
21 applies across the licenses," you immediately can then
22 take the initiative to develop a generic position on
23 it, distribute it to all the project managers and then
24 very efficiently, particularly if it's a deletion, you
25 can very efficiently then deal with the number that

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1 may come in. Tom is absolutely thinking along these
2 lines. He also included in this, as we talked about
3 one of the problems was the priority it was viewed,
4 that he intends to let the licensees know that NRR
5 will be responsive to requests for these license
6 amendments.

7 It kind of deflates me, because I'm going
8 to come back in July and I'm going to probably have to
9 say they fixed whatever we would have recommended in
10 the licensing area, but in a very positive way I think
11 we helped provide a focus on getting it going and the
12 focus was contributed to by people in the industry
13 who've been coming in. The messages all came together
14 at once.

15 So I think we're on our way in NRR to now
16 addressing the problem, if you would, or the ability
17 to deal with the question, and that's a very up-beat
18 note I'd like to leave on.

19 MR. SNIEZEK: That concludes our briefing,
20 Mr. Chairman.

21 CHAIRMAN SELIN: Commissioner Rogers?

22 COMMISSIONER ROGERS: Well, I just wanted
23 to say that I think you've done a remarkable job. I
24 must say I was a little skeptical in the beginning as
25 to how fast you could make progress on this thing, but

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1 it seems to me you're doing very well.

2 One of the question that I have is do you
3 have any thoughts about the possibility of a second
4 sweep through the system to pick up those areas that--
5 you had to go very fast, I'm sure, on some of these
6 matters to decide whether they were worthy of
7 attention or not and I know in our office we picked up
8 a couple of things that one could conceivably go back
9 and look at again. What are your thoughts on that?
10 I know you expect to be out of business.

11 MR. GILLESPIE: Yes. I tell you, we're
12 staying on schedule. In particular, when you see very
13 positive reactions, before you get to make your
14 recommendations someone went and fixed the problem on
15 you, it may be worthy of it but it's not something I
16 would recommend when we're done rushing into. The
17 basic work list is going to be long enough, and this
18 is something I've talked to Jim -- let me use the
19 margin of safety program which is going to have a
20 workshop here in about a month and I'm going to say a
21 few words at the beginning on how we're not
22 interfering with what they're doing. People should go
23 forward with that very important process, lots of
24 public input. They got handed a lot of new things to
25 consider. The list of things in the SECY they sent up

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1 for future consideration is very long. They could be
2 working a long time to work off that list. It's
3 important that it be prioritized and have a lot of
4 input, which is what they're doing, and then it
5 becomes a question of rate.

6 We will have a lot of what I'll call
7 "nits." We picked up a lot of clean-up stuff, I mean,
8 down to the level of why is anyone sending 37 copies
9 of applications in if they apply for a license because
10 what we found out we do is throw them all away because
11 it's easier to take a new cover sheet and put it on
12 and re-Xerox it 37 times ourselves. We've got a list
13 of nits which we're going to include as a list of nits
14 that should be folded into kind of that ongoing
15 review.

16 I don't know that a second sweep would be
17 actually -- would be worth it until someone decides
18 the work list is low enough.

19 MR. SNIEZEK: Commissioner, I think one of
20 the things that this group is going to do is identify
21 those regulations and implementing practices which
22 were reviewed and we concluded did not require any
23 follow-up action. That's the thing we really have to
24 focus on to make sure we didn't miss something there.

25 COMMISSIONER ROGERS: Oh, yes. That's

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1 exactly what I was talking about.

2 MR. SNIEZEK: So until we identify what
3 they are and take a look at it, it's very hard to
4 answer that question in a straightforward manner.

5 COMMISSIONER ROGERS: Well, it's just
6 that, you know, when you're all heated up to do these
7 kinds of things and you have a certain degree of focus
8 and point of view that's sometimes a good time to
9 create a little street sweeping crew that comes along
10 and picks up after that.

11 It comes to mind in the plant situation
12 with root cause analysis and the reporting of LERs
13 where a root cause has to be done right away within a
14 certain amount of time that reviews of those LERs,
15 root causes of those LERs, has been very, very
16 fruitful in the individual plants. They've really
17 done a much better job on a few things than they could
18 have under the time pressure that they had to work to
19 respond to our requirements and it just seems to me
20 that possibly there might be some value to a small
21 special group that looked at a few areas a little more
22 carefully that had been set aside as not probably
23 important enough.

24 MR. SNIEZEK: That's something we'll have
25 to take a look at after we --

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1 MR. GILLESPIE: One of the reasons we
2 included in our submittal -- or what we put in the
3 public document room and we also will include in our
4 final report, although it adds to the bulk quite a
5 bit, is the data sheet on each rule so people would
6 have some insights on why we set it aside. Quite
7 honestly, when you look at Part 50 -- and we're
8 focusing on operating reactors -- when you look at
9 Part 50 and look at the sheer volume of rules that
10 affect operating reactors' day to day operation, it's
11 very small. It is not the bulk of Part 50.

12 The bulk of Part 50 is administrative in
13 nature, covers everything from hearings to content of
14 application to content of tech specs, which is why I
15 am not sure that, if someone went through our data
16 sheets and saw why we set it aside, they might say,
17 "Well, that's nice to clean up for the next CP, but
18 it's not something that deems immediate attention,"
19 and that's kind of where I'm reacting. When you pin
20 it down, we're not talking this much paper. It's
21 actually very, very small.

22 COMMISSIONER ROGERS: That's fine.

23 CHAIRMAN SELIN: Commissioner Curtiss?

24 COMMISSIONER CURTISS: I don't have any
25 further questions, but I commend everybody who's

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1 involved in this. The review group has done, I think,
2 as Commissioner Rogers just said, a superb job in a
3 very short period of time.

4 You've got an aggressive schedule before
5 you. Obviously the key to this effort is not just to
6 complete the work by the end of July, but for the
7 Agency to carry forward on the findings and
8 conclusions, the recommendations that you make, and
9 it's my understanding that you're paying particular
10 attention to making sure that you bring in a broad
11 range of people from the offices who will be impacted
12 by the conclusions and who obviously will need to buy
13 into what you recommend and that step will be a very
14 critical part of this process, but the work done to
15 date has really been of the first class quality.

16 CHAIRMAN SELIN: Commissioner Remick?

17 COMMISSIONER REMICK: I could not put my
18 hands on a final copy of the SRM that was sent, but I
19 thought in that the Commission had indicated that you
20 should use a perspective of safety goals in your
21 looking at the regulations, but I could not find
22 anywhere in the document the word "safety goals" and
23 I was wondering if --

24 MR. GILLESPIE: We will be happy to send
25 you -- I'm glad you asked that. We have right now --

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1 it took Joe and Mary and I kicking around how are we
2 going to approach this. The question has been around
3 for a long time.

4 COMMISSIONER REMICK: Yes, it has.

5 MR. GILLESPIE: A number of years.

6 We've come up with an approach. We're
7 going to use probably INEL and Bickel to help us a
8 little bit on a short four to five week effort. The
9 statement of work is going out today. The way we're
10 approaching it -- and if I get to detailed I'd be
11 happy to come and brief you later -- is in measuring
12 rules, rules tend to be somewhat programmatic in
13 nature and cross components. If you're doing a PRA,
14 a PRA is on a design. What we're going to do is
15 attempt to take a PRA from either Peach Bottom or
16 Surrey and cross the rules to the components and
17 systems in the PRA and then sort those components and
18 systems by their risk significance and then do some
19 sensitivity analysis, and let me describe how we're
20 going to try to do this.

21 We're going to take programmatic rules
22 which kind of go across multiple components and
23 basically vary it. If you made what we thought the
24 impact of that rule was on this PRA model up to ten
25 times worse or ten times better, what does that do to

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1 the risk of this particular plant? And what you get
2 generally when you do this kind of sensitivity
3 analysis is kind of, if I could, a sideways "S" curve
4 generally. You get to the point where you're so good
5 you can't really improve any more and you get to a
6 knee in the curve the other way where you're so bad
7 that you have a plant melt-down, and there's kind of
8 a straight line in the middle.

9 What we're going to be looking at is
10 possibly a comparison of those lines as an indication
11 of the risk sensitivity of rules rule to rule and we
12 almost have to focus on things like whatever the large
13 release for that facility is so that we can go across
14 core melt frequency, if you would, as a stumbling
15 block, which it usually is in this kind of thing.
16 It's half quantitative. It's half qualitative. It's
17 a feasibility question. Can we get a handle on it
18 somehow?

19 It may not add up to an absolute value,
20 but what I'm trying to do is see if there's an
21 innovative way to come up with a rule to rule kind of
22 measure of how sensitive the risk in a facility is to
23 a particular rule, because the rules tend to deal with
24 all the Greek letters in the risk term and not the
25 component itself.

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1 So, the answer is yes. I'm going to take
2 a shot at it. I think there's a 60 percent chance
3 we'll come out with something good and there's a 40
4 percent chance that I'm going to look at it and say,
5 "I'm sorry I did this," but --

6 COMMISSIONER REMICK: I realize it's very
7 difficult. I just wanted to make sure that you hadn't
8 overlooked that.

9 MR. GILLESPIE: No. It's a shot. No
10 one's tried this before. Bickel was very excited
11 because it was something new and when you give someone
12 who's kind of researchy and academic something new
13 they kind of -- their eyes glisten.

14 COMMISSIONER REMICK: Sure.

15 MR. GILLESPIE: So it's kind of a four
16 week effort, test some rules, and we'll see what we
17 come up with.

18 COMMISSIONER REMICK: Fine.

19 Just this past week I attended a session,
20 and in fact it was chaired by Herschel Spector, on
21 risk-based tech specs. There was a very interesting
22 paper by a person, by Scientech, I think for
23 Fitzpatrick, where he used an example of one diesel
24 generator being out of service and tech specs would
25 normally require that you have 72 hours to restore it.

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1 They made the argument and tried to
2 demonstrate that the actual risk was less with one
3 diesel generator than two, which seems hard to accept.
4 But, if you accept their assumptions that when you
5 have only one diesel generator there are a lot of
6 other things that you're doing for the support system,
7 as you mentioned earlier, jogging the pump,
8 surveillance and so forth, so, if you accept the
9 assumption that when you do that you have increased
10 the reliability of the remaining diesel generator,
11 that if you can at least demonstrate based on those
12 assumptions that the risk is less during that period,
13 so why be limited to 72 hours?

14 Whether you agree with the assumptions or
15 not, it's consistent with what you're saying --

16 MR. GILLESPIE: Absolutely.

17 COMMISSIONER REMICK: -- about it and it
18 was a whole session on just the topic you were talking
19 about.

20 Incidentally, in one of those, I'm not
21 sure it was Herschel, but somebody is now talking
22 about win-win-win, that it's safe, cheaper, and it
23 makes the NRC happy. That was the third win, which I
24 thought was interesting.

25 I'm very pleased at NRR response, because

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1 one of the things that I have consistently been asked
2 in giving talks or visiting plants is "when is the NRC
3 going to be more receptive to risk-based arguments?"
4 and so forth, so I'm pleased to see that the Agency is
5 prepared to respond.

6 I also want to add my compliments. I had
7 some doubts when you started whether you'd be able to
8 accomplish all the things you set out, but I certainly
9 was impressed with the enthusiasm and the sincerity
10 with which you approached it and continue to have.

11 One comment on the document. Editorial
12 work, I think, would help the readability.
13 Admittedly, I was scanning for recommendations and you
14 haven't made them yet, so maybe recommendations will
15 help to pull things together, but sometimes I had to
16 kind of read between the lines to guess where you were
17 coming out.

18 MR. GILLESPIE: I think that's one of the
19 dangers of trying to move through a lot of material in
20 six months. By the time we get a document out we're
21 usually two or three weeks ahead of it, so we're not
22 what I will say is dedicating a lot of time to editing
23 intermediate products, and also to get them in a PDR
24 as quickly as possible.

25 CHAIRMAN SELIN: Commissioner de Planque?

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1 COMMISSIONER de PLANQUE: I have no
2 specific questions, but I must say I'm impressed with
3 what you've done.

4 I'm really encouraged with some of the
5 problems that you've identified. You know, in
6 retrospect they instinctively look like these are
7 really the right problems, and particularly because
8 some of them lend themselves or obviously lend
9 themselves to solutions which I think is very good.

10 I wouldn't be too discouraged if people
11 are already implementing your recommendations, because
12 that means you've been successful.

13 MR. GILLESPIE: No, no. That's success.
14 That's success, because part of our charter says,
15 "develop a consensus."

16 COMMISSIONER de PLANQUE: Right, and so
17 I'm really looking forward to your recommendations and
18 particularly the practical and specific ones that can
19 move us along this path quickly.

20 Thank you.

21 CHAIRMAN SELIN: I would basically like to
22 add a point. There was a fellow who taught a course
23 at the Harvard Business School on salesmanship and he
24 told a story of a salesman who had made 30 sales calls
25 in one day and he said, "You know, I almost made 33,

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1 which would have been a record, but three of the guys
2 insisted I write up an order."

3 Remember, the idea is to get these things
4 done even if the results are a little less elegant by
5 spinning off some of these pieces and getting them
6 done. There's nothing wrong with that.

7 I think this was a terrific job. We had
8 a lot of doubts whether you could reasonably handle
9 such a broad thing, including the risk-based work, at
10 the beginning and we felt that it's better to try to
11 do it all at the same time so that we get a
12 comprehensive overview and so far it appears that
13 you're making us look not bad on that, so we look
14 forward to your recommendations and particularly the
15 execution of a number of these recommendations.

16 Thank you very much.

17 (Whereupon, at 11:54 a.m., the above-
18 entitled matter was concluded.)

19
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21
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25

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This is to certify that the attached events of a meeting
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TITLE OF MEETING: BRIEFING ON PROGRESS OF NRC REGULATORY REVIEW

PLACE OF MEETING: ROCKVILLE, MARYLAND

DATE OF MEETING: MARCH 26, 1993

were transcribed by me. I further certify that said transcription
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BRIEFING ON PROGRESS OF NRC REGULATORY REVIEW

FRIDAY, MARCH 26, 1993

**PRESENTED BY
FRANK P. GILLESPIE**

REGULATORY REVIEW GROUP

- **CURRENT AND RECENT PROGRAM INTERFACES**
- **INDUSTRY/PUBLIC INTERFACES**
- **INFORMATION COLLECTION COORDINATION**
- **SCOPING THE PROBLEM**
- **INSPECTION PROGRAM**

REPORT SCHEDULE

MAY 7	COMPLETE LICENSE REVIEW
MAY 13	COMPLETE REGULATORY/GUIDANCE REVIEW
MAY 20	COMPLETE RISK TECHNOLOGY REVIEW
MAY 28	COMPLETE DRAFT INTEGRATED REPORT FOR COMMENT (30 DAYS)
JUNE 29	END OF COMMENT PERIOD
JULY 30	FINAL REPORT TO COMMISSION

REVIEW OF REGULATIONS

- **REGULATIONS REVIEWED: PARTS 21, 26, 50 & 73**
- **ANALYSIS COMPLETED ON:**
 - **QUALITY ASSURANCE & PROCUREMENT**
 - **PART 21**
 - **ITEMS UNDER LICENSEE CONTROL
(50.48, 50.54, & 50.59)**
 - **FIRE PROTECTION & QA**
 - **INSERVICE TESTING**
 - **POLICY STATEMENTS**

REVIEW OF REGULATIONS

- **ITEMS TO BE COMPLETED**
 - **INSPECTION PROGRAM**
 - **DIVISION I REG GUIDE REVIEW**
 - **GENERIC LETTER REVIEW**
- **POTENTIAL ANALYSIS TOPICS IDENTIFIED**
 - **REPORTS**
 - **FITNESS FOR DUTY & ACCESS AUTHORIZATION**
 - **SECURITY**
 - **DECOMMISSIONING**
 - **MISCELLANEOUS ITEMS**

QUALITY ASSURANCE & PROCUREMENT

- **REQUIREMENT - APPENDIX B - IS PERFORMANCE BASED**
- **APPENDIX B ALLOWS "GRADED QA"**
- **RELIABILITY - THE OBJECTIVE OF QA**
- **PROCUREMENT PEDIGREE - A SURROGATE FOR RELIABILITY**
- **BALANCE IN THE APPLICATION OF QUALITY ASSURANCE**
 - **ENGINEERING JUDGEMENT**
 - **APPROPRIATE TESTING**
 - **PEDIGREE**

POLICY STATEMENTS

- **ADMINISTRATIVE PROCEDURES ACT DEFINES PS**
- **17 OF THE EXISTING PS IMPOSE BURDENS**
- **THE 17 PS ARE CHARACTERIZED IN 5 CATEGORIES**
 - **SUPERSEDED BY RULES OR NO LONGER APPLICABLE (8)**
 - **VOLUNTARY BUT IMPOSED A BURDEN (2)**
 - **IMPOSED A LIMITED BURDEN, BUT BURDEN IS OUTWEIGHED BY COMMITMENT TO OPENNESS (2)**
 - **ADDRESS CONDUCT OF OPERATIONS (4)**
 - **INTERPRETED AS REQUIREMENT BY LICENSEES (1)**

INSERVICE TESTING

- **REQUIREMENT - 10 CFR 50.55a(f)**
- **INDUSTRY & STAFF ADDRESSING MANY AREAS**
 - **TYPE OF TESTS CONDUCTED**
 - **FREQUENCY OF TESTING**
- **TIMELY INDUSTRY CONSENSUS AND NRC RULEMAKING REQUIRED**
- **50.55a(f)(iv) - ALLOWS USE OF RECENT CODE ADDENDA (WITH NRC APPROVAL)**

COMMERCIAL GRADE PROCUREMENT & PART 21

- **PART 21 BASED ON SECTION 206 OF THE ENERGY REORGANIZATION ACT**
- **PART 21 PROVIDES DEFINITIONS OF:**
 - **COMMERCIAL GRADE**
 - **BASIC COMPONENT**
 - **DEDICATION**
- **PART 21 APPEARS TO ASSUME A PROCUREMENT WORLD THAT DOES NOT EXIST**
- **PART 21 CONSIDERED A CANDIDATE FOR REVISION IN AREAS OF HOW IT IMPLEMENTS SECTION 206**

LICENSE REVIEWS

- **COMPLETED REVIEW OF SEABROOK AND SURRY**
- **DOCUMENTED INDIVIDUAL PLANT INSIGHTS**
- **CURRENTLY WORKING ON PEACH BOTTOM AND PERRY
REVIEWS**

INSIGHTS

- **INCONSISTENT APPROACH FOR REPORTING AND CHANGING PLANT SYSTEMS, PHYSICAL SECURITY, EMERGENCY RESPONSE, QUALITY ASSURANCE AND FIRE PROTECTION PLANS**
- **THE "EFFECTIVENESS" OF "PLANS" SUCH AS THE FIRE PROTECTION, PHYSICAL SECURITY, EMERGENCY RESPONSE AND QUALITY ASSURANCE PLANS IS ILL-DEFINED ALLOWING INCONSISTENT APPLICATION**
- **MANY ITEMS IDENTIFIED ARE REMOVED BY THE IMPROVED STANDARD TECHNICAL SPECIFICATION PROGRAM**

INSIGHTS

- **NON-REQUIREMENTS HAVE BEEN ELEVATED TO GENERIC REQUIREMENTS CIRCUMVENTING THE RULEMAKING PROCESS**
- **REPORTING REQUIREMENTS NEED REEVALUATION**
- **CONSIDER GRADED APPROACH TO REVIEW COMMITTEE FUNCTIONS**

ITEMS WHICH EXCEED REGULATORY REQUIREMENTS

EXAMPLES

- **SURRY TS 6.1.B.10 STATION STAFF
WORKING HOURS***
- **SEABROOK TS 3.8.2.1 D.C. ELECTRICAL
POWER SYSTEM**

*** APPLIES TO BOTH SEABROOK AND SURRY**

ITEMS WHICH SHOULD BE CONSIDERED FOR REDUCTION IN REGULATORY BURDEN

EXAMPLES

- **SURRY OL 3.1** **FIRE PROTECTION
CONDITION***
- **SEABROOK TS 6.8.1.5** **MONTHLY OPERATING
REPORTS***

*** APPLIES TO BOTH SEABROOK AND SURRY**

ITEMS WITH INHERENT FLEXIBILITY

EXAMPLES

- **SEABROOK TS 3.4.10** **STRUCTURAL
INTEGRITY**
- **SURRY TS 4.0.2** **GENERAL
SURVEILLANCE
REQUIREMENT***

*** APPLIES TO BOTH SEABROOK AND SURRY**

ITEMS WHICH SHOULD BE CONSIDERED FOR ENHANCED FLEXIBILITY

EXAMPLES

- **SURRY TS 3.0.1** **GENERAL LIMITING
CONDITION FOR
OPERATION***
- **SEABROOK OL 2.E** **PHYSICAL SECURITY
CONDITION***

*** APPLIES TO BOTH SEABROOK AND SURRY**

ITEMS CONSIDERED IN OTHER PROGRAMS

EXAMPLES

- **SEABROOK TS 6.2.2.A MINIMUM SHIFT
CREW COMPOSITION***
- **SURRY TS 3.8.A CONTAINMENT
INTEGRITY AND
OPERATING PRESSURE**

*** APPLIES TO BOTH SEABROOK AND SURRY**

ITEMS FOR WHICH NO FURTHER CONSIDERATION IS WARRANTED

EXAMPLES

- **SEABROOK NON-TECHNICAL LICENSE
CONDITIONS***
- **SURRY TECHNICAL SPECIFICATION
DEFINITIONS***

*** APPLIES TO BOTH SEABROOK AND SURRY**

RISK TASK STATUS

- **COMPLETED SURVEY OF RELEVANT NRC PROGRAMS**
- **ASSESSED SELECTED FOREIGN APPLICATIONS**
- **CURRENTLY ASSESSING U.S. INDUSTRY EFFORT FOR APPLICABILITY**
- **DEVELOPING SCOPE OF POTENTIAL MID-TERM EFFORT (2 YEARS) FOR INCORPORATION OF RISK TECHNOLOGY INTO REGULATORY PROCESS**
- **POTENTIAL FOR PILOT APPLICATION**

BACKGROUND

- **NRC (RES/HFB0) HAS HAD AN ACTIVE RESEARCH PROGRAM ADDRESSING USE OF RISK TECHNIQUES TO OPTIMIZE TECHNICAL SPECIFICATIONS SINCE 1983**
- **MUCH OF RISK-BASED REGULATORY WORK DONE BY INDUSTRY AND OTHERS OUTSIDE U.S. HAVE DRAWN FROM THIS WORK**
- **U.S. UTILITY PRIME CONTRIBUTOR TO OECD/NEA EFFORTS TO DEFINE "LIVING" PSA AND ITS USE IN PLANT OPERATION**

DEGREE OF DETAIL DEPENDS ON APPLICATION

**TYPE A PRIMARY RELIANCE ON QUALITATIVE RISK
INSIGHTS**

EXAMPLES:

- **MAINTENANCE RULE**
- **GRADED QA**

REQUIREMENTS:

- **AVERAGE PRA MODELING**
- **IPE-TYPE REVIEW BY NRC STAFF**
- **GENERIC FAILURE RATE DATA**
- **PRA UPDATES ON REFUELING OUTAGE
BASIS**

COMMENT:

- **MAINTENANCE RULE GUIDANCE
APPLICABLE TO QA APPLICATIONS**

TYPE B

PRIMARY RELIANCE ON QUANTITATIVE RESULTS IN SELECTED AREAS

EXAMPLES:

- **LIMITED IMPROVEMENTS BEYOND NEW
STANDARD TECH SPECS**
- **CONFIGURATION MANAGEMENT
USING PRE-CALCULATED TABLES**
- **DETERMINATIONS OF UNREVIEWED
SAFETY QUESTION" UNDER 10 CFR 50.59**

**TYPE B PRIMARY RELIANCE ON QUANTITATIVE
RESULTS IN SELECTED AREAS**

- REQUIREMENTS:**
- **AVERAGE PRA MODELING**
 - **EXTENSIVE REVIEW IN SELECTED AREAS**
 - **GENERIC DATA AUGMENTED BY PLANT-SPECIFIC DATA IN SELECTED AREAS**
 - **UPDATES EACH AT ABOUT REFUELING OUTAGE FREQUENCY**

- COMMENT:**
- **METHODS WELL DEVELOPED TO OPTIMIZE AOTs AND STIs**

TYPE C PRIMARY RELIANCE ON OVERALL QUANTITATIVE RESULTS

EXAMPLE: ● **RISK-BASED TECHNICAL SPECIFICATION USING ON-LINE UPDATING OF PRA MODELS**

REQUIREMENTS: ● **STATE-OF-ART PRA MODELING**

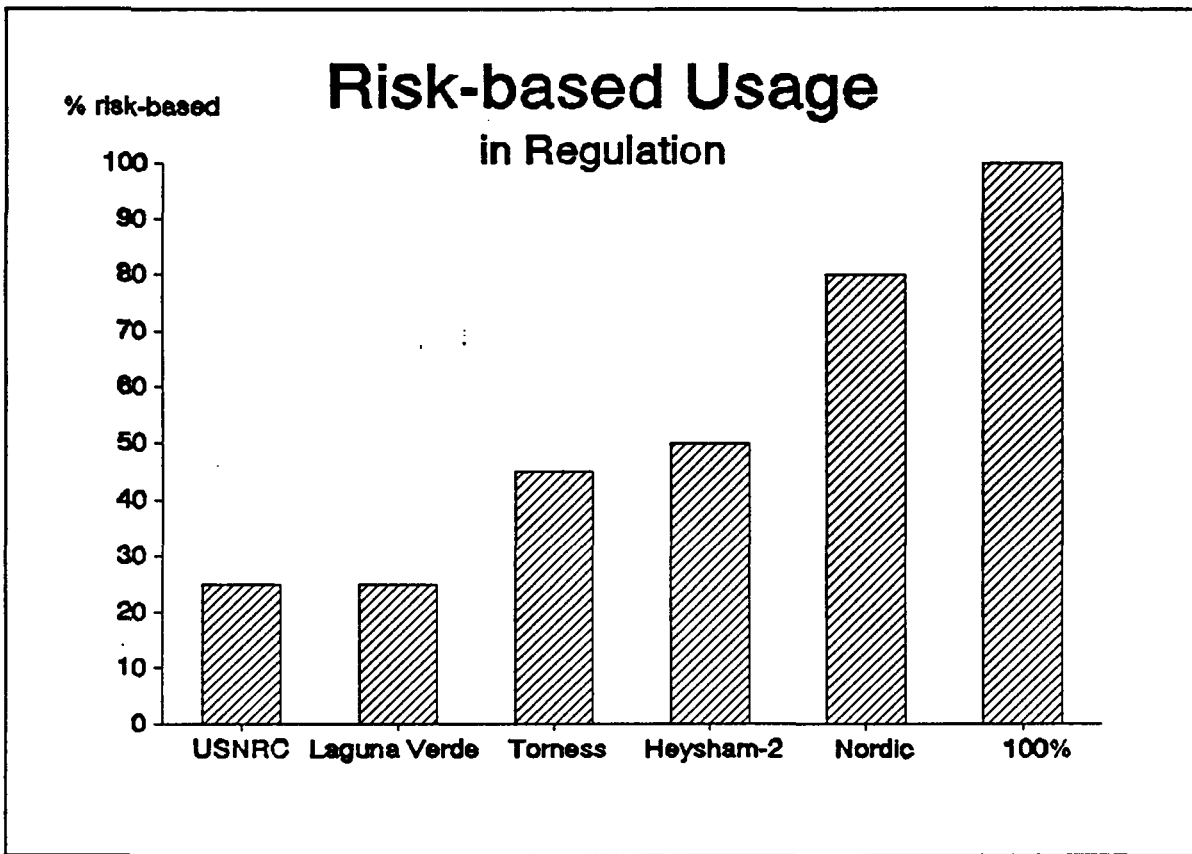
● **EXTENSIVE REVIEW OF PRA BY STAFF**

● **COMPREHENSIVE PLANT-SPECIFIC DATA ANALYSIS**

TYPE C PRIMARY RELIANCE ON OVERALL QUANTITATIVE RESULTS

COMMENT:

- **REQUIRES SUBSTANTIAL COMMITMENT OF RESOURCES BY LICENSEE**
- **MAY REQUIRE FURTHER SOFTWARE DEVELOPMENT FOR EASY IMPLEMENTATION**



RISK BASED REGULATION

