

NUCLEAR REGULATORY COMMISSION

ORIGINAL

COMMISSION MEETING

In the Matter of: PUBLIC MEETING

DISCUSSION OF NEAR-TERM CONSTRUCTION
PERMIT REQUIREMENTS

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Public Meeting

DISCUSSION OF NEAR-TERM CONSTRUCTION PERMIT
REQUIREMENTS

Room 1130,
1717 H Street Northwest,
Washington, D.C.

Tuesday, January 13, 1981

The Commission met at 2:04 p.m., pursuant to
notice.

Present:

- JOHN AHEARNE, Chairman.
- VICTOR GILINSKY, Commissioner.
- JOSEPH HENDRIE, Commissioner.
- PETER BRADFORD, Commissioner.

Present for the NRC Staff:

- Harold Denton.
- William Dircks.
- Howard Shapar.
- Robert Purple.
- Richard Vollmer.
- Thomas Murley.
- Denny Ross.

Also Present:

LEONARD BICKWIT, Esq.
MARTY MALSCH, Esq.,
Office of General Counsel.

SAMUEL J. CHILK,
Office of the Secretariat.

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P R O C E E D I N G S

1
2 CHAIRMAN AHEARNE: One could easily take half an
3 hour to describe the background of what is left of the paper
4 we have today. I won't do that. I'll just simply say that
5 along with turning the agency's review process back to
6 operating license applicants, we do have pending before us a
7 procedure to turn the agency's review process back to pending
8 construction permit or manufacturing license applications, and
9 we have gone through certain steps in that process, and we
10 have another one in front of us today, and that is the Staff
11 proposals, or at least the tentative Staff proposals based upon
12 reviewing the proposals that have gone out for public comment
13 and meeting with the ACRS.

14 Bill?

15 MR. DIRCKS: Harold and Bob Purple will go through
16 the details of the recommendations that we are going to be
17 making today. The one recommendation that we are making that
18 I would like to emphasize is our seeking of approval to go
19 forward from the -- to formalize the licensing requirements
20 that we have outlined in NUREG 0178, and proceed to development
21 of a final rule based on those licensing requirements that we
22 have outlined with the exception of one item that was identified
23 in the ACRS letter pertaining to containment requirements.

24 The ACRS asked that they be permitted to review
25 this subject again and come up with some recommendations and

1 final position in early February, and we would recommend
2 that while awaiting the ACRS recommendations, that we proceed
3 between now and then with the development of a final rule on
4 these licensing requirements.

5 With that statement of introduction, I think Harold
6 will pick it up there, and Bob Purple will take us through the
7 details of the requirements themselves.

8 COMMISSIONER HENDRIE: Before you get started, let
9 me ask Bill and Harold and Howard, do you mean rule on this
10 rule, or the same sort of policy guidance that exists on the
11 operating license?

12 MR. DIRCKS: Final rule.

13 COMMISSIONER HENDRIE: This time you mean final
14 rule.

15 MR. SHAPAR: The previous notice said following
16 the receipt of public comments, the Commission will finalize
17 the position and take appropriate action regarding the possible
18 issues, and final rules on some or all of these matters. So
19 the basis has been set for a final rule, if you want.

20 MR. DENTON: Let me discuss first who I think this
21 rule ought to apply to. I think the Staff is saying it ought
22 to apply only to those CPs that are presently docketed. Those
23 that are requesting CPs. It was not intended to set forth a
24 new licensing basis for the next generation of plants, if there
25 are any; but rather to apply to those that are currently before

1 us, and we have identified those, and identified them in this
2 package.

3 I also think it should apply to another class of
4 applicant. That's that class of applicants which hold CPs
5 but have, for one reason or another, done very little work
6 on their CPs.

7 In essence, I see those as practically CP-holders.
8 So if there are applicants who have valid CPs, but have never
9 begun any substantive work, I think the same improvements
10 in their design, their management, their control room, risk
11 studies, all ought to be equally applied to them. Otherwise,
12 we will have the awkward situation conceivably of those plants
13 starting up a couple of years after this rule may pass, and then
14 being confronted at the OL stage with a plant that doesn't
15 look as good as plants which would meet this rule. And I
16 will come back to later some ways to specify in which it would
17 apply.

18 There were two major elements in the proposed
19 notice. One was the requirements in the NUREG 718 which are
20 those action plan items that we think are applicable to a CP,
21 and we will go into the comments we received on 718 in some
22 detail a little bit later.

23 There were four policy issues that gave us the most
24 trouble in developing the original rule, and what I will do is
25 describe our views on those four, and we have the agreement of

1 the ACRS essentially on these four, with one exception, and I
2 asked the Secretary this morning to make sure that you-all
3 received a copy of the letter dated January the 12th from
4 the ACRS. It reflects our most recent meeting with them.
5 The four policy issues at the time we first noticed this
6 proposal, one was emergency planning. That's been dealt with
7 now by the Commission formally, and that issue is in effect
8 moot, as I see it. Your rule applies and spells out the
9 requirements for the CPs.

10 The second issue was siting. We have proposed
11 originally that utilities compare their sites to 0625 and
12 the recommendations, taking into account the recommendations
13 of the ACRS and OPE. We have now had time to actually do this
14 comparison ourselves, and this comparison is presented in
15 Appendix 5 to this report I've sent down, and in essence what
16 we have now concluded -- and this is both from a demographic
17 and a hydrologic standpoint -- is that these sites in essence
18 meet what we expect -- we expect these sites would all fall
19 within the envelop of subsequent Commission action with regard
20 to siting.

21 We don't see any outliers here that you would be
22 meaningfully foreclosing by these sites.

23 Five of these sites meet the illustrative
24 example in 0625 right down the line, and 6 meets it when you
25 take into account demographic population of the region that

1 the site is located in.

2 We have also looked at the hydrologic characteristics
3 of these sites and find nothing unusual there. Io we have
4 concluded that with regard to siting, our own look has not
5 turned up anything that would be a flag to say that you
6 shouldn't proceed on the site just because of something
7 unusual.

8 CHAIRMAN AHEARNE: Let me ask on the hydrological,
9 Harold, I notice that the major point seems to be discussed
10 in your appendix here has to do with the time it would take
11 to get flow through groundwater into some larger body of water.

12 MR. DENTON: Yes.

13 CHAIRMAN AHEARNE: What wasn't clear to me is what
14 kind of a threshold you had for when it would go from an item
15 of acceptability to an item of concern to an item of unaccept-
16 ability.

17 MR. DENTON: I think there remains to be developed
18 any firm sort of criteria in this area. The travel times in
19 the report were only that, they are travel times of water.
20 They don't reflect the actual chemical delay that would occur
21 by the properties of the soil interacting chemically with
22 the isotopes, and so these times would not really be achieved.

23 COMMISSIONER HENDRIE: If you had a plant sitting
24 in an aquifer which had a 10-day transit time into the
25 reservoir feeding the municipal water supply, you kind of scratch

1 your head over maybe whether that is a little bit close coupled
2 with an accident situation.

3 CHAIRMAN AHEARNE: 10 days into a reservoir is
4 scratching your head. Okay, that's a peg point.

5 (Laughter.)

6 MR. DENTON: It's more a judgment by the hydrologists
7 who have looked at all the sites that they don't see any out-
8 liers or anything that even begins to --

9 CHAIRMAN AHEARNE: I hadn't been sufficiently clear.
10 The difficulty I was having is that I'm given a set of sites
11 and the point that you're making is that you've examined the
12 hydrology and they are all acceptable, and how does the reader
13 know they are acceptable? Why, the reader is told that here are
14 the travel times.

15 MR. DENTON: That's a judgment.

16 CHAIRMAN AHEARNE: but the reader is never told
17 what is the travel time that gets to the point of unacceptability,
18 or what is the Staff's judgment of it. At the three-year time,
19 sure, obviously three years is a long, long time, but now you
20 start shifting down, as I recall, you get down to what, at
21 least one 90 days, and wasn't there one less? 20 days?

22 MR. DENTON: Well, you are quite correct. Neither
23 the Commission nor the Staff have developed detailed criteria
24 in this sort of area. The closest we got into it was on the
25 OPS on which we thought it was not adequate time for

1 interdiction measures to take place, and that's how we ended
2 up recommending that that plant be designed with core catchers
3 to provide time for interdiction.

4 I think what the Staff was trying to say here is that
5 there is ample time for interdiction using a very conservative
6 calculation of travel times, and that taking into account real
7 processes would provide even more time, and maybe we didn't lay
8 that out.

9 CHAIRMAN AHEARNE: I see your point is that even the
10 50 days, that's still, in your judgment, quite adequate travel
11 time.

12 MR. DENTON: That's right. And the judgment that
13 within this population of sites, we don't see anything that is
14 unusual or that represents a new situation that would cause us
15 to want to flag this as a warning, special study.

16 Let me ask if the Division of Engineering here would
17 like to add anything in that area.

18 MR. VOLLMER: I think basically what you said, Harold,
19 is correct. 50 days is the shortest time we think that the
20 matter of a couple of weeks, if you use measures such as pumping
21 down the water table, and things like that, that interdictive
22 measures could be taken quite feasibly, from what we have seen
23 before. We can make a more detailed looked at these plants as
24 we gain more knowledge and as construction would proceed to see
25 if anything would need to be done before they be given an

1 operating license, in the event that rulemaking would call for it.
2 But again we don't see anything that would preclude measures
3 being taken even subsequent to an accident, if one should occur
4 for these sites.

5 CHAIRMAN AHEARNE: In any event, I do now have my
6 rule of thumb now.

7 (Laughter.)

8 10 days to a reservoir.

9 MR. DENTON: And I guess my rule of thumb would be
10 time for interdiction.

11 Then what the demographic statistics say, the attachment
12 5 does do some of those sorts of comparisons. Once again, we
13 can't forecast the ultimate outcome on siting, but if you look
14 at the five categories of sites that we have identified in the
15 back, two of these six sites fall in the best category of sites,
16 in other words, where it has the lowest population density; two
17 fall, I believe, average; and two slightly above average.

18 So while these six sites differ somewhat in their
19 demographic comparisons and characteristics, none of them are
20 in the upper brackets of population density.

21 The highest two are in slightly above average, and
22 there are two categories yet above that.

23 So I didn't see any point in trying to do something
24 special in these. I think we have assured ourselves that they
25 don't have a Limerick or an Indian Point type situation. So

1 on that basis we propose not to require any extra rules on siting
2 for these six.

3 With regard to reliability engineering or risk
4 assessment, we had first proposed to do certain reliability
5 studies of selected systems, and we had attempted to identify
6 those systems in which we would want to do special engineering
7 studies.

8 Through meetings with the ACRS and questions such as
9 what is your criteria, how will you decide how to apply this,
10 and why don't you include other systems, we came to the conclu-
11 sion that what was most appropriate was a comprehensive risk
12 study for these that would look at both the site and the plant
13 systems, and in effect identify some time before the OL or
14 before the OL stage the outliers, whether they be loss of AC
15 power or ATWS or small-break LOCAs so that the Staff, during
16 the OL review, could focus on those systems where there was a
17 most likely chance to reduce risks.

18 We'd also want these risk studies to be used in the
19 engineering design of a plant. The intent is not to have a plant
20 just built the same way, necessarily, and then reviewed at the OL
21 stage to see what resulted, and to find some way to assure that
22 the risk analyses are done in advance or concurrent with the
23 engineering design, so that when an auxiliary feedwater
24 system is laid out on paper, accompanying it is a risk reliability
25 study of that system, so if it's not a good system, it can be

1 seen then and fixed then.

2 So we decided to not try to define which systems can
3 risk studies and which don't, but rather to require what I'd
4 call a comprehensive look at both the plant and the site, and
5 require to be submitted within several years of the issuance
6 of any CP, so that it really could be an engineering type tool
7 in the development, but not one that we'd require pre-CP.

8 CHAIRMAN AHEARNE: You don't see, then, that the
9 results of that review are such that it would lead to major hardware
10 modifications?

11 MR. DENTON: Well, it might lead to hardware, but we
12 wouldn't be foreclosing, in my view, the opportunity for
13 hardware types. I don't think we'd foreclose pumps and valves
14 and heat exchangers and so forth, especially in anything over
15 the next few years' timeframe. It would be mainly civil
16 structures that are built.

17 CHAIRMAN AHEARNE: Would you propose some kind of a
18 deadline, either in time or in type of final engineering fix?

19 MR. DENTON: Yeah, in any event, by the time of the OL,
20 I think the entire study should be done.

21 CHAIRMAN AHEARNE: Well, sure, by then. But if your
22 point is that you aren't going to be requiring them to -- you
23 don't see this leading to any major exterior building construc-
24 tion modifications, you can say give them several years to work
25 down. But even in that basis there, at each point in time,

1 the design gets further locked in and major components are
2 purchased, engineering is set, and connections, et cetera.

3 MR. PURPLE: Excuse me. One of the things we
4 intend to require as a part of the CP is a plan from the
5 applicant to demonstrate how he will do these early reliability
6 engineering assessments on individual systems in a manner not
7 to foreclose finalizing the design before these results are in,
8 so we'll have a chance to look at that before we issue the CP,
9 that it's a reasonable program.

10 MR. DENTON: But I would think we'd want it in
11 essentially on the -- within a few years of issuance of the CP
12 and we will have to work out the details.

13 CHAIRMAN AHEARNE: That's part of the requirement.

14 MR. DENTON: Yes.

15 Finally the one that prevented us from coming to
16 final agreement with the ACRS was on the degraded core. We
17 had originally proposed conceptual designs of several systems
18 so as to not foreclose our ability to put those in later. We
19 had then expanded the list internally to maybe eight or 10 items
20 that we didn't want foreclosed, and we would require some
21 conceptual designs of.

22 The more we thought about it, the more we concluded
23 that the only thing you really foreclose over the next several
24 years is the civil structure itself. That's the concrete and
25 the rebar and the steel; that whatever comes out of the

1 rulemaking on degraded core, most have the equipment and hardware
2 fixes could be added at a later date if we made sure that we
3 didn't foreclose solutions that went to the capability of the
4 containment itself, and we asked ourself what kind of capability
5 do you want.

6 In terms of not foreclosing the Commission's options,
7 one way would be to require containment capability to cope with
8 100 percent metal-water reaction, for example. We asked our-
9 self what does that really mean and the Staff's view was that
10 if you look at these small containments, the Mark IIIs and
11 the ice condensers, and you design it for about 45 psi or so,
12 in that range, then when you look at the resulting containment
13 pressure and you look at it not just in terms of an adiabatic
14 heat-up of the containment, but look at it taking into account
15 the heat sinks that are available in containment and possibly
16 sprays and other processes, that about 45 psi would in essence
17 give you the capability to cope with all the hydrogen that might
18 be burned during a realistic plastic type code, where you
19 properly dissipate heat during the burn and so forth.

20 COMMISSIONER GILINSKY: Design pressure at 45?

21 MR. DENTON: Yes. It would also get you up close
22 when you multiply that design pressure by a factor of 2-1/2, to a
23 pressure that you would calculate using an adiabatic heat-up of
24 containment; whereas if you just do an adiabatic heat-up
25 for burning 100 percent hydrogen in the small containments, you

1 are up to 125 psi or something in that kind of range.

2 So it would provide you, in terms of ultimate
3 capability, something close to an adiabatic, which is very
4 conservative, and at the design, if you're designing for
5 something that is about what you'd get from a realistic account-
6 ing of the way the heat would really be dissipated.

7 Well, the owners of the small containments didn't
8 quite -- weren't quite willing to say they could achieve that
9 within their existing designs, or they weren't sure they agreed
10 with a number, that that's really what you'd get if you did
11 this kind of realistic calculation, and the GE owners pointed
12 out that Houston Power & Light Company was just completing a
13 major study of risk reduction methods and mitigation methods,
14 of which this was a direct variable in their study, and suggested
15 that before the committee came to a final conclusion in this
16 area, they ought to hear the Houston study, and that's what
17 led to the -- I guess Allens Creek is the name of the plant --
18 led to the recommendation in the ACRS letter that all parties
19 reconvene early in February, get the results of the study by
20 Allen Creek, before judging a final -- trying to define how
21 containment capability would be defined, so as to not foreclose
22 the possible outcomes.

23 COMMISSIONER GILINSKY: I'm surprised that you picked
24 45 as the number that you get as a result of 100 percent metal-
25 water reaction. If we believe the 28 psi number for TMI, that

1 arose from something between -- I don't know what, 30 to 60
2 percent metal-water reaction. So you think that this is
3 proportional to that reaction.

4 MR. DENTON: Well, this requires a controlled ignition
5 system be installed, not just accidental ignition.

6 COMMISSIONER GILINSKY: Oh, I see. Oh, okay.

7 This is assuming that you have a system --

8 MR. DENTON: A workable ignition system, yes.

9 COMMISSIONER HENDRIE: I don't think you let the
10 stuff get up into a detonable range and then pop it all at
11 once. I think that's --

12 COMMISSIONER GILINSKY: No, no, I didn't realize that
13 he was coupling the two.

14 MR. DENTON: So that was the basis for the 45. Then
15 we asked the structural engineers, how much can you get out of
16 these Mark IIIs and ice condensers without invalidating the
17 entire design concept?

18 CHAIRMAN AHEARNE: What do you mean, get out?

19 MR. DENTON: Can you stress -- can you improve the
20 design, using conventional materials without --

21 COMMISSIONER GILINSKY: To what extent can you beef
22 it up.

23 MR. DENTON: Beef it up, yes, without requiring a
24 whole new layout and whole new redesign of the plant. In effect,
25 kept the geometric layout of the plant, the volume arrangements

1 the same, but increase the thickness of the steel, for example.
2 We have free-standing steel structures that range from half
3 an inch to about 2-1/2 inches in thickness, and going that
4 route, they originally thought that perhaps these structures
5 could be beefed up to about 60 psi. And so 60 was above 45,
6 which had been estimated by the hydrogen burn staff, and that's
7 then what led me to put 60 in the paper, and gave me some room
8 to decide what the right 45 was, and --

9 CHAIRMAN AHEARNE: This is 60-gauge.

10 MR. DENTON: 60 -- they're all gauge, yes.

11 But that the structural staff felt that 60 could be
12 achieved in these designs, just changing the materials. They
13 wouldn't require a complete departure from the Mark III contain-
14 ment and rebuilding a dry containment, for example. And then
15 it was --

16 COMMISSIONER HENDRIE: What does an inch and three
17 quarter plate limit get you?

18 MR. DENTON: I'll ask Dick Vollmer to answer that.

19 MR. VOLLMER: Well, with the addition of stiffeners
20 and modification of head design and tie-down of the basemats
21 for the Mark IIIs and the ice condensers, we think that the
22 inch and three quarters, which would be a limit for --

23 COMMISSIONER HENDRIE: No post-weld requirement on
24 the whole vessel?

25 MR. VOLLMER: Even that would get you about 50. So

1 we think that again the combination of stiffeners, head design,
2 base metal design, and as thick as you can go without the post-
3 weld heat treatment, could get you to 45, 50, or even higher.

4 Now the state of the art in the field in terms of
5 design fabrication materials, since we have free-standing steel
6 shells up to 50, 60 pounds, some of these have used post-weld
7 heat relieving, anyway, so that if were -- that is not beyond
8 the feasibility, by any means. That's still part of the state
9 of the art in the field.

10 COMMISSIONER HENDRIE: Well, if you were just doing
11 a containment vessel, maybe; but keep in mind that these,
12 both the ice condenser and the Mark IIIs, have certain construc-
13 tion sequence in mind. Everything is then planned on that
14 basis. If you now decide, you know, that if it is one where
15 you've got a steel shell containment, you decide you're going
16 to have to heat-treat the dumb thing, why, the whole construc-
17 tion sequence now gets completely redone because you've got to
18 have an empty shell that you can fire after the welding in order
19 to do the heat-treatment, and then build everything inside it,
20 and I suspect that really throws those projects into a cocked
21 hat.

22 I'd think that would be more of a perturbation than
23 some significant geometric change than we have talked about.

24 MR. VOLLMER: Another geometric change that would be
25 in keeping with the plant layout would be an elevation of the

1 head and give you the volume, so a combination of the whole
2 additional volume and this different, thicker shell would
3 likely get you there also. The design pressure might not be
4 a specific, let's say, 45, for example; but it still might
5 accommodate all the scenarios that you might need.

6 CHAIRMAN AHEARNE: Well, Harold, then, exactly which
7 are you proposing? I recognize this is still the piece that
8 is open.

9 MR. DENTON: Yes.

10 CHAIRMAN AHEARNE: But are you proposing that a
11 60 psig requirement -- are you proposing that the maximum
12 amount of strength inconsistent with no fundamental redesign?

13 MR. DENTON: Well, they worked out --

14 COMMISSIONER HENDRIE: I think you're suggesting
15 you're going to talk some more to the ACRS and listen to Houston
16 Power.

17 CHAIRMAN AHEARNE: Let me at least understand what
18 his preliminary recommendation was, if you don't mind.

19 MR. DENTON: The two worked out to be sufficiently
20 close in the 45 to 60 range that I really didn't have to choose.

21 CHAIRMAN AHEARNE: I think you do have to choose,
22 because the one is a requirement which says that you are
23 confident that your own staff's estimates are correct and, so,
24 therefore, 60.

25 The other is that you -- that 60 seems to be what is

1 reachable, but you are not going to mandate that it goes to 60.
2 Instead, you are going to say that it is as stiff as it can be.

3 MR. DENTON: The 45 is the more important one because
4 that met the criteria of not foreclosing options with regard
5 to hydrogen, and it came close to accommodating that design
6 and what you would expect realistically to result from an ignition
7 system burning hydrogen in several successive times.

8 So that was the real driving force, and when engineering
9 people originally reported values higher than that, I preferred
10 those values because that made the calculation -- well, there's
11 some uncertainty in any of these, and I wasn't sure how it
12 would work out. So I think our inability to defend precisely the
13 45 or 60 and the industry not being certain that they could go
14 to even 45 when pressed. There are some other elements in our
15 thoughts, too.

16 We didn't want weak links in the containment. We
17 wanted to be sure that all the penetrations and the equipment
18 hatches were also designed not to be limiting, so that 45, in
19 our view, was a shell. The main membrane, and everything else
20 would be stronger.

21 Another element in our thinking is we wanted a
22 three-foot penetration provided in these containments that
23 would be capped off, flanged, and welded, so that we wouldn't
24 preclude filtered containment venting systems.

25 So, taken together, having a high capability for

1 pressure retaining and then a potential to install a filtered
2 containment. Then if that turns out to be a result from the
3 rulemaking, we think those two things provide a significant --
4 taken together, provide a significant potential for risk
5 reduction, and therefore we would not have foreclosed in the
6 civil structures possible actions that we may come to see
7 as necessary.

8 (Commissioner Bradford left the room at
9 2:35 p.m.)

10 CHAIRMAN AHEARNE: I'm still trying to go on. I want
11 to try once more. Is it your intention going down, though,
12 to end up with a specific pressure requirement that the
13 design must be designed to withstand? Or is it to require that
14 the containment structure be made as stiff as possible,
15 consistent with making fundamental redesign?

16 MR. DENTON: Well, I never had to really choose,
17 because it came out. What I would like to have is that it
18 at least be designed to withstand 100 percent, or close to 100 --
19 it really didn't matter if it was 99 or 98 sort of number,
20 working of a hydrogen ignition system, and that got me in the 45
21 range, and that seemed to be within the state of the art to
22 build. And I would say --

23 COMMISSIONER HENDRIE: If one wanted to go that way,
24 it seems to me there is some merit to the fact of going that
25 way. You wouldn't set a design pressure because it would mean

1 differnt things in terms of hydrogen capability, depending on
2 the volume of the containment and the amount of zirc in the core
3 and so on, and so on.

4 So what you'd say, if you wanted to go this way,
5 what you would say is choose design pressure for the containment
6 such that you're below ultimate low gross failure for pressure
7 condition in the containment corresponding to an adiabatic
8 burn, and I'd put it some -- I don't know, 100 percent is -- I
9 don't think you can get there. 90 percent, I think is going to be
10 above whatever would come out in the rule, but for these
11 purposes it would be adequate.

12 Then they've got, well, what is the core? Is it a BWR
13 core or a big one or a little one, or is it a PWR core? Has
14 it got the zirc inventory to look at? And they've got containment
15 volume which because in most of these plants, as Dick points
16 out, you can add a little bit height, they have a little bit
17 latitude there.

18 So one would have a fairly definite prescription
19 which would lead the designers back through to a design pressure
20 after some calculations, but it wouldn't be just a thick 40
21 pounds or 60 pounds for everybody, come what may.

22 CHAIRMAN AHEARNE: I would have thought so, except
23 for the recommendation on page 8.

24 COMMISSIONER GILINSKY: Well, but aren't we basically
25 talking about containments of about a million cubic feet?

1 COMMISSIONER HENDRIE: Yeah. The ones that are in --
2 now, let's see, is Pilgrim II is a what?

3 MR. DENTON: It's a CE plant.

4 COMMISSIONER HENDRIE: So it's a P. I was going to
5 say we didn't have any Mark Is or IIs.

6 MR. DENTON: In this discussion we had really focused
7 just on the ice condensers and Mark IIIs. There's a general
8 feeling that the big dry containments did not require any
9 special capability in this area, other than looking for weak
10 links in the design, and in withstanding penetration.

11 CHAIRMAN AHEARNE: Is this a draft of 0718?

12 MR. PURPLE: It's addressed in essentially the same
13 way it is in the Staff paper. In other words, it would now
14 show, I think, 60 pounds; but I think, as Harold is saying,
15 that one item is one that we wish to further refine.

16 MR. DENTON: So the PWR owners, taken together,
17 the package we recommended was an adequate basis for proceeding.

18 (Laughter.)

19 The GE owners seemed to think that if it's defined
20 as 100 percent metal-water reaction and care is taken in the
21 assumptions on how you translate that into pressure, that's also
22 a great way to proceed. But they don't like the specific 45
23 for the reasons Commissioner Hendrie has laid out.

24 CHAIRMAN AHEARNE: I don't guess they would have liked
25 60, either.

(Commissioner Gilinsky returned at 2:42 p.m.)

1 MR. DENTON: They liked 60 even less. But we were just
2 not able to pin down accurately what these structures could
3 withstand. 60 was our original estimate as to what they might
4 be able to take without invalidating the concept and since
5 they encompass the 45, that is the way to reach the 60, and I
6 would propose on that issue that we not attempt to resolve
7 it until we've had this further meeting with the Allens Creek
8 people and gotten the ACRS advice on how to write that, or how
9 to approach it, if you agree with the concept.

10 COMMISSIONER GILINSKY: All this has to do with
11 controlling a satisfactory system for controlled burning of
12 hydrogen.

13 MR. DENTON: Under the design value, that's right; but
14 if you take the two and a half times, then, it's also --
15 gives you the ultimate capability, if you exclude the detonation
16 potential. Somehow if you burn it without detonating it, it
17 gives you a capability to go above 100 psi in terms of --

18 COMMISSIONER HENDRIE: At this kind of containment
19 capability, your requirements on the ignition system are
20 not very stringent. All it requires is a number of ignition
21 points which just will prevent any substantial region of the
22 containment getting so hydrogen-rich or that you're up in the
23 big bang part of the diagram, and if there are big burns and
24 little burns within that general proposition, why, it just
25 doesn't make any difference here. So the requirements of

1 the ignition system are much less stringent here than they are
2 when you have a containment of 50 pound design capability and
3 45 or 50 ultimate.

4 MR. DENTON: And it gives you more flexibility for
5 possible use of a filtered containment vent system. You wouldn't
6 be faced with having to make a very early decision about whether
7 to vent, as you would in a very low pressure containment, if
8 it has a higher capability.

9 CHAIRMAN AHEARNE: Are the floating plants the only
10 ice condensers?

11 MR. DENTON: Yes.

12 So with that introduction, let me turn it over to Bob.

13 (Laughter.)

14 COMMISSIONER HENDRIE: I thought the meeting was over.

15 MR. PURPLE: I was marking out paragraphs on my
16 notes. I have none left. But I do have a few.

17 COMMISSIONER HENDRIE: Why don't you just say "and now
18 to the vote."

19 (Laughter.)

20 MR. PURPLE: I thought it might be useful, since we
21 did go out for public comment on what we counted up to be
22 five different things in the Staff paper, just to walk through
23 those very briefly, and where we come out.

24 Put the first viewgraph up, please.

25 (Slide.)

1 We already had the policy overview. I'll go through
2 in a slightly different order than they are presented in the
3 Commission paper, the various items on which we sought public
4 comment and how we have reacted to that.

5 First, in changes to NUREG 0718, I should explain the
6 NUREG has in it paragraphs that would embody these special
7 requirements; as it went out in the draft form, we had words in
8 the NUREG that dealt with degraded core rulemaking, siting,
9 emergency preparedness, and so forth, and reliability engineering.

10 What I'm talking now about, when I say changes in NUREG
11 0718, I mean everything except those items, because we
12 treat those separately, as Harold has been talking about. So
13 these are the mass of the action plan things.

14 I first might remind you that each action plan item
15 that's identified on 0781 had a category associated with it,
16 and if you put on viewgraph 2, please --

17 (Slide.)

18 -- and I will not go through this in great detail,
19 unless you desire it, but just to remind you, there were
20 five categories.

21 Generally speaking, category 1 was the easiest for
22 an applicant, because it said that item is not applicable to a
23 CP.

24 Category 5 called for the most effort on the part of an
25 applicant, because he had to have the normal full detailed

1 description that's required for a CP stage.

2 The intermediate categories, 2 through 4, were
3 increasingly more stringent in that requirement, and that's the
4 way each item in the plan was categorized.

5 So now during the course of the public comment and
6 review, we established a new task force to undertake to react
7 to the public and to give another look at these category
8 designations and such a task force was created. So the net
9 result, one net result of the public comment period was a re-
10 categorization.

11 For instance, with respect to CPs, I think the count
12 comes out something like 16 of the 90-odd action items were
13 recategorized from something higher than a 1 to a category 1;
14 that is the judgment made that, well, after all, this item is
15 not really applicable to the CP stage, and it can be deferred
16 and applied later on.

17 And these are shown in the next two slides. If you
18 can put up No. 3.

19 (Slide.)

20 And that is enclosure 3 to the Staff paper. I won't
21 go through those in any great detail.

22 You have a different set of designations for the CP
23 and the ML, and that's what the slashes are in the two columns.
24 Some were strengthened, that is put into a higher category,
25 but very few. The larger majority of them, I think you can count

1 two or three that were in that group.

2 The next slide, please.

3 (Slide.)

4 It's just a continuation.

5 CHAIRMAN AHEARNE: You have three in all?

6 MR. PURPLE: Three in all is what I recall.

7 In addition to changing the category -- if you can
8 put on slide No. 5 --

9 (Slide.)

10 -- this is a list of the items for which the text of
11 the requirement as it was worded in the draft was revised and
12 a characterization of the revision as shown up there. I'm
13 sure this doesn't list every single one of them. There were
14 typos and a few other things that got revisions, but these are
15 the ones that had some substance to them that were revised.

16 So if you were comparing the draft to the final, these
17 are the changes.

18 That's all I was going to say about the actual
19 detailed action items in the plan. I think they were responsive
20 to public comment, although the large number of tasks, the
21 16, relatively large number that went from some category that
22 required something to be done at the CP stage to a category 1,
23 which says don't do anything, that is not applicable. The
24 bigger majority of those decisions was made by the task force
25 who reconvened and looked at this thing again prior to receiving

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the public comments, so they are not just reactions to people who said, "I shouldn't have to do this," and the Staff agreed. It was a reconsideration that whether it really was necessary or not, and perhaps had we gone too far in the draft, and in some instances the decision by the group was yes, and that's carried forward in that present paper.

The second item that was requested comment on -- you can turn that slide off and hold it for a while -- not in necessarily in this order -- was asking comment on whether or not these pending CPs and ML applicants should be required to review their designs against the SRP and document deviations and so forth.

We did get comments on that, but as I'm sure you are aware, a parallel federal notice went out about the same time as the one on 0718 that asked for similar comments on all plants at all stages of licensing, whether they're operating reactors or OLs under review or CPs.

We would propose today to defer discussion of that topic because you're meeting tomorrow where you will hear from the group who got all the comments on all stages of plants, including CPs, and so we propose to defer any discussion of that. We're not really prepared to bring that up today.

The Federal Register notice that went out also asked for comments on in what form and in what way should instructions to the Boards be given with respect to these pending CPs

1 requirements. And other than recommending that the requirements
2 that are in 0718 be comported into a rule form so that they
3 are issued as a rule, the Staff defers the other comments on
4 this -- decision on the other comments to the Commission itself.

5 There is a two-page discussion on page 8 and 9 of
6 enclosure 2 that spells out for you some of the thoughts that
7 people had as to what kind of instructions you might give to the
8 Board.

9 MR. SHAFAR: If you adopted the idea of going to a
10 rule, you probably wouldn't need to give any instruction.

11 CHAIRMAN AHEARNE: Right.

12 MR. PURPLE: You may recall there were three basic
13 options we talked about in the draft paper and in the Federal
14 Register notice, and without going into any depth, just in a
15 very summary fashion, the three options were treat these pending
16 CPs generally the same as we are treating OLs today; that is,
17 don't require any special nonforeclosure measures. That's
18 option 1.

19 Option 2 is one that says let's in effect don't resume
20 licensing of these CPs until the two major rulemakings are
21 settled; that is siting and degraded core.

22 And option 3 is the one in between, treat them like
23 OLs, but do seek certain nonforeclosure measures in certain
24 areas.

25 Perhaps not unexpectedly, most of the commenters

1 favored option 1. We did have one comment that favored option
2 2, that says hold up all licensing until at least the siting
3 rule is in place. That's Department of Interior.

4 The Staff, as I'm sure you have heard today, we still
5 continue to prefer that option 3 that says let's proceed with
6 the licensing, but with a set of selected measures, and as you
7 have heard already, a different set than was proposed in the
8 draft.

9 Just by way of review, Harold covered this -- if you
10 will put up slide 6, please --

11 (Slide.)

12 I am down now to talking about the special measures,
13 and just a summary overview of what Harold was talking about
14 is shown on this particular slide. It leads off the emergency
15 preparedness, since that's kind of behind us now, since you
16 have a rule. So the three remaining items, just very
17 cryptically on the left, we had something in place which we
18 think the things on the right suitably replace and would end up
19 being an approach less open-ended, with a more clear criteria
20 that we think would reduce extended litigation at hearings,
21 and as Harold has discussed at some length already, we still
22 need to further particularize the strengthened containment one,
23 and get that worded in a manner that we can all understand.

24 CHAIRMAN AHEARNE: I guess the one thing, Bob, that
25 I'm not clear on is the way that chart indicates that -- you

1 could read it that reliability engineering aspect was dropped.
2 Or you included --

3 MR. PURPLE: It's expanded and included in the first
4 line of the full plant --

5 CHAIRMAN AHEARNE: -- risk assessment.

6 MR. PURPLE: That's right. That's right. And as I
7 mentioned on that, I'll just repeat it, there would be required
8 in the rule, if it becomes a rule, to do a full plant site
9 risk assessment prior to or as part of their FSAR submittal.
10 But also be required to demonstrate at the CP stage how they
11 are going to integrate reliability engineering into their
12 design so that it's not just an after-the-fact snapshot, but
13 that in fact reliability work influences the design as it goes
14 along.

15 I'm flipping the pages that we have already talked
16 about.

17 Put up viewgraph No. 7.

18 (Slide.)

19 You already have seen the letter. All this is is a
20 summary of the recommendations of the comments of the ACRS,
21 agreeing with respect to degraded core rulemaking. They do
22 agree with the general approach we are trying to achieve, but
23 as we agree, we need more precision in how to state that require-
24 ment, and they recommend the Commission defer action until after
25 the ACRS February meeting.

1 I didn't plan to go into any more detail with respect
2 to what's in 0718, that is task by task. We are certainly
3 prepared to answer any questions on any one of the tasks, but
4 it didn't seem to me to be terribly useful. They are tasks we
5 are all familiar with and have seen over the months.

6 You should be aware that there are some tasks that
7 are identified in 0718 and in the final draft that are over and
8 above what we are today applying to OLs and ORs, but they are
9 logically over and above. We are getting a little head start
10 on it.

11 An example of one that you can identify if you compare
12 new 0737 with the most recent statement of requirements is
13 radiation protection plan. If you look in the present 0718,
14 you will find that we require that they speak to and commit to
15 having such a plan. That's a little bit ahead of what we
16 actually have laid on the rest of the existing ORs or upcoming
17 OLs.

18 There are maybe six to eight items like this that I
19 can identify for you that are a little step above what we are
20 doing for ORs. They aren't major items, we don't believe;
21 mostly paper work commitment type things. But I wanted you to be
22 aware that they are in the package and so they are sort of
23 additive to the special measures, if you will, that were up on
24 the previous chart.

25 I think our recommendations on the tail end of the

1 Staff's paper hold, with the one exception that we are not
2 specifically seeking your approval today of the way the Staff
3 paper was written, which said exactly 60 pounds for degraded
4 core item, but seeking approval to proceed with converting all of
5 this mass of paper into a suitable rule much in the detail as
6 it is presented in this final 0718, with the exception of that
7 one item on containment strengthening, where we suggest that
8 we are not ready until at least the ACRS meeting in February,
9 and we'll see how that comes out, and how best we can word that
10 particular one.

11 CHAIRMAN AHEARNE: Let me ask a couple of questions,
12 and then I'm sure my colleagues have questions.

13 First, on the filtered vent provision that you are
14 proposing, is there any negative about making that requirement?

15 MR. PURPLE: Only if one didn't take care to design it
16 properly, and it became some kind of a weak link in the contain-
17 ment. But it doesn't seem to be anything that's beyond the
18 normal state-of-the-art design. A three-foot opening isn't that
19 large.

20 We are thinking of nothing right now, but making
21 provision through all the reinforced concrete, et cetera, just
22 to have the provision there, blanked off, maybe seal-welded,
23 so that it's -- the existence of the capability shouldn't be
24 anything negative. If you ever came to use it for putting a
25 filtered vented containment system in, or a balloon, or whatever,

1 then that's another --

2 CHAIRMAN AHEARNE: May I ask, on your reliability
3 engineering, to probe again, picking up on the ACRS comment,
4 they say that the NRC Staff indicated that although they did
5 not propose making a formal requiremen., one intent of the
6 proposed position on reliability engineering was to strongly
7 encourage each applicant to perform the relevant portions early
8 enough that the results could be factored into a safety-related
9 optimization of the design.

10 I guess I am still a little unclear on what you would
11 propose to end up actually requiring, and when. Because I read
12 what the ACRS is saying as that you would like them to make sure
13 they do it soon enough, but it's not going to be required.

14 MR. PURPLE: Well, I think there may have been -- I
15 don't know whether Harold wants to answer this -- there may have
16 been a misunderstanding. I was surprised when I read that
17 in the ACRS letter, because Harold's answer to that question
18 when it came up, as I heard it, was that we were going to make it
19 a firm requirement at the CP stage that such reliability
20 engineering things be done early enough. There must have
21 been some miscommunication.

22 MR. DENTON: We hadn't been able -- I think what we
23 are proposing here today includes our reaction to the ACRS
24 pinpointing lack of specific definition, and we would try to say
25 it in the license or in the rule, the way Bob has said it, that

1 you get through some formal mechanism the idea required.

2 CHAIRMAN HEARNE: Okay. Last minor question. I
3 notice in the paper you are talking about relationship of the
4 siting -- any applications of siting to existing CPs, and you
5 go on to say that after having read the Congressional Act,
6 adoption of the Interior comment would be inconsistent with the
7 apparent attempt of Congress not to apply the new regulations
8 to these applications. And I was just curious as to what
9 "apparent" -- I mean I thought the law said --

10 MR. PURPLE: We have had a lot of discussion on this,
11 and I guess there is not unanimity, and maybe that is what led
12 to the word "apparent," because there is not unanimity. But
13 there is one school of thought that says what Congress is telling
14 us is don't adjust the sites. Don't go back and look at the
15 site of someone who has filed his CP prior to a certain date.
16 And we are not proposing to do that, and so that line of argument
17 says what we are proposing here isn't counter to that.

18 If, however, your object is to take a look at the
19 site itself in an overall safety sense to determine whether or
20 not the plant sitting on that site ought to have something done
21 to it, like should you have pre-mitigation features for water
22 pathways and so forth, that you're not going counter to the law
23 by using the siting features to make you find shortcomings that
24 you then fix up in the design.

25 Now, as I say, there are those who argue, no, that's

1 not right, either. So we felt uncomfortable --

2 CHAIRMAN AHEARNE: I was just noticing that these are
3 sort of four sentences apart. You quote the Congress, the
4 regulations shall not apply to any facility for which an applica-
5 tion was filed, et cetera.

6 Three lines later, you say the apparent intent of
7 Congress not to apply the new regulations to these applications.

8 MR. DENTON: All right. I guess we always leave legal
9 interpretations to the proper parties.

10 (Laughter.)

11 COMMISSIONER GILINSKY: Could you tell me how many
12 plants the requirements on design pressure would apply to?
13 There's the manufacturing license, on the one hand, and --

14 MR. DENTON: There are three of these that have
15 Mark IIIs, and I guess they are all --

16 COMMISSIONER GILINSKY: Is that three units or
17 three applications?

18 MR. DENTON: Three applications, five units, I believe.

19 COMMISSIONER GILINSKY: That's in the pre-CP stage.
20 Do you have an estimate of how many would be in the post-CP,
21 but-not-yet-underway category?

22 MR. DENTON: Well, if you use the less than 5 percent
23 construction as one way of defining that they are not underway,
24 there are three units that have BWR containments.

25 COMMISSIONER GILINSKY: Mark III?

1 MR. DENTON: One's a Mark II and two are Mark IIIs.

2 COMMISSIONER GILINSKY: Which units?

3 MR. DENTON: Excuse me?

4 COMMISSIONER GILINSKY: Which units are those?

5 MR. DENTON: Bailey is a Mark II, and Clinto: and

6 Phillips Bend are Mark III.

7 COMMISSIONER GILINSKY: Would you be requiring that

8 the Mark IIs increase the containment strength as well?

9 MR. DENTON: Yes.

10 COMMISSIONER GILINSKY: But there presumably you

11 would be requiring inerting, wouldn't you?

12 MR. DENTON: Well, a good point. It goes back to how

13 do we define the requirement? Is it to cope with 100 percent

14 metal-water reaction. But I think even for the Mark IIs we

15 would -- we would look to see if it could be beefed up, and

16 we would look for weak links, and we would put in the filtered

17 containment venting capability.

18 Now it's true that the 45 was derived on the basis of

19 Mark IIIs. I don't know what the corresponding number might

20 be for a Mark II.

21 COMMISSIONER GILINSKY: Mark II is smaller, isn't it?

22 MR. DENTON: Yes.

23 COMMISSIONER GILINSKY: Okay. But you're thinking in

24 terms of some sort of beefing up of the structure?

25 MR. DENTON: Yes. And our -- as you will see when

1 LaSalle comes before you, which is not a contested case, there
2 we are advocating inerting the Mark II.

3 COMMISSIONER GILINSKY: But there is something on the
4 order of seven or so Mark IIIs, plus two.

5 It seems to me the manufacturing license falls in a
6 somewhat different category in that there is not an active
7 application from the utilities which puts that almost in a
8 category of, you might say, pre-application, in the same category
9 as a Mark III that hasn't yet been applied for.

10 I'll tell you where I'm headed: I was wondering
11 whether you had thought about what you would require of plants
12 that had not yet submitted their application. In other words,
13 in arriving at these numbers, whether it's 45 or 60, you have
14 been constrained by the fact that there's an existing design,
15 there's an application, a lot of work had been done on preparing
16 that application, and some work had been done on design, and
17 all that needs to be taken into account, and that's why the
18 number ends up being 45 and maybe 60 instead of 100, because at
19 even 60 it corresponds to something like say 30 psi for a
20 larger containment.

21 Do you want to venture any view on what the number
22 ought to be for someone who hasn't come in the door yet?

23 MR. DENTON: Well, that's the object of the rule-
24 making, and I am not yet satisfied with our predictability for
25 really converting hydrogen burn into containment pressure. It's

1 quite dependent on surface area and other parameters, and that's
2 why I wasn't all that satisfied with just picking the 45 number
3 and putting it in the paper. Neither the Staff nor the --

4 CHAIRMAN AHEARNE: You didn't.

5 MR. DENTON: Well, that's right. I don't think we yet
6 have the right -- we don't have a sufficient understanding of how
7 to account for the heat sinks in the containment to feel
8 comfortable with a precise number yet. But the object would be,
9 in my view, to try to have a containment that could cope with a
10 burn of 100 percent hydrogen, so you set aside the detonation
11 question for a moment, but just a sure burn that could cope with
12 that through the reasonable process that you could expect to
13 work. And then see what pressure that resulted in.

14 COMMISSIONER GILINSKY: I would guess a number uncon-
15 strained by existing designs and all the considerations that
16 affected those, that we are dealing with plants or applications
17 submitted and worked on, and so on, would probably end up being
18 higher than the one you suggested.

19 MR. DENTON: You'd be up to 150 psi or so in sort of
20 an adiabatic heat-up all at one time.

21 COMMISSIONER HENDRIE: I kind of doubt you'd --
22 you'd hike the pressure rating that high. I think what you would
23 do would be to build volume into the system.

24 COMMISSIONER GILINSKY: Well, I mean the combination.
25 I wasn't necessarily fixing on the pressure rating, but the

1 ability to cope with a certain amount of hydrogen burning, is
2 what I'm concerned about, and certainly --

3 COMMISSIONER HENDRIE: But the manufacturing license
4 has a certain -- whatever containment system is proposed has
5 to go on the barge, and I think they have some weight and space
6 problems going to a high pressure large volume dry containment
7 as is typical of PWRs on land sites.

8 So the manufacturing license may even, in a future
9 generation, carry -- have to be looked at specially rather
10 than conforming to some broad general rules that it wouldn't
11 be unreasonable for the run of land-based plants.

12 MR. DENTON: I think we'd also look at these contain-
13 ments to not preclude the possibility of the rule requiring
14 inerting. Whereas in addition to strengthening them, we'd want
15 to get equipment out of the containment. So to the extent
16 possible -- so that if in fact the final rulemaking decision was
17 that it should be some higher pressure, one way for a Mark II
18 would be to inert it.

19 It seemed to me the main thing, from my thinking of
20 the nonforeclosure, did go to the civil structure foreclosure,
21 and if you get up in the 45 to 60 psi range, you do get an
22 ultimate capability that's up there where the dry containments
23 are, with the two and a half factor on top of it.

24 So that you've gone an awful long way and still have
25 the option of requiring inerting if it was deemed necessary.

1 COMMISSIONER GILINSKY: Let's see. We're not leaving
2 the inerting possibility open on the ones that we are talking
3 about here, are we?

4 MR. DENTON: Yes. In my view. As a possibility, but
5 not as a requirement, but --

6 COMMISSIONER GILINSKY: Well, as that equipment gets
7 put into the containment in line with current design, I think
8 the possibility of inerting these containments is not going to
9 be very great. At least it's going to require a tremendous
10 redesign and rebuilding.

11 MR. DENTON: Well, I guess I'm coming at it from the
12 standpoint of it looks to the Staff as though the ignition
13 system is a workable system, and therefore is likely to in the
14 final review prove to be inefficient or ineffective sort of
15 system. If that didn't work out, and there was no way to burn
16 the hydrogen, then we'd be faced with inerting.

17 CHAIRMAN AHEARNE: Let's see. You've got three systems
18 you are talking about. You've got the PWR systems; you've got
19 the Mark IIIs and you've got the ice condenser floating plants.

20 MR. DENTON: Yes.

21 CHAIRMAN AHEARNE: When you say that you would leave
22 open the inerting possibility, it's the latter two you are
23 talking about?

24 MR. DENTON: Yes, that's right.

25 CHAIRMAN AHEARNE: In your discussions with the ACRS,

1 have you raised as one of the options that you want to consider
2 putting in as a requirement the provision be there for inerting?

3 MR. DENTON: It was discussed, but I don't think as a
4 requirement. Let me ask Bob if he remembers.

5 MR. PURPLE: On the meeting with the subcommittee,
6 earlier in the week of last week, we discussed a range of options,
7 and that was one of them, provision for inerting. But --

8 CHAIRMAN AHEARNE: I'm trying to address speci cally
9 -- you have made a proposal what you would end up requiring,
10 and the ACRS has said, well, this is a new proposal, we have just
11 seen it, and we want time to think further through it.

12 In the proposal of what you would have in mind for
13 requiring, has one of the elements of that been that the
14 provision must be provided for the ice condenser and Mark IIIs
15 that the plant may have to be inerted?

16 MR. DENTON: No, I didn't, in our proposal to them --
17 it was more on beef up the pressure capability, so you wouldn't
18 foreclose. I think we always felt we had in our pocket the
19 possibility of inerting could always be done.

20 CHAIRMAN AHEARNE: Well, but as Dick points out,
21 if you do intend to place that as a requirement in the design
22 as they go down into design on it, it's going to be different.

23 MR. DENTON: Well, the answer, though, to the question,
24 did they consider it explicitly? Not at their final full
25 committee meeting, that was discussed with them. It was more

1 all on capability, and I think I was just voicing --

2 CHAIRMAN AHEARNE: But is that the direction you are
3 now beginning to shift to or go to, that you would want to lay
4 on a requirement that in addition to potential for putting in
5 filtered vented containment, they also should have the potential
6 for being able to inert, have that as a normal operating --

7 MR. DENTON: No, I had not seen the need to put in
8 independently, because I thought by the time we reached that
9 decision, construction wouldn't be so far along that it would
10 really be foreclosed, anyway.

11 COMMISSIONER HENDRIE: I think you could do one or
12 the other. You could say, look, for these CPs that have been
13 granted, inert them, and if you inert them, you can build them
14 to 15 pound design.

15 MR. DENTON: Yes.

16 COMMISSIONER HENDRIE: Or the other way to go about it
17 is beef up the containment so that you can take a substantial
18 metal -- hydrogen burn or a series of burns without going past
19 the failure point of the containment. But if you do it one way,
20 I don't see any requirement to then also do it the other way,
21 and it does -- you know, if you are also going to think about
22 keeping equipment out of the containment, that does make
23 very substantial layout differences in the plant.

24 I suspect pretty -- you know, sort of like redoing
25 the design type differences.

1 MR. DENTON: Let me ask -- we did give some thought
2 to the risk reduction that we would get from increasing the
3 capability. You get a risk reduction, not just from coping
4 with hydrogen, but it gives you additional margin on a number
5 of scenarios, but let me ask --

6 CHAIRMAN AHEARNE: Which gives you that?

7 MR. DENTON: Both in strengthening the containment
8 overall capability as well as the possible filtered containment
9 venting use -- just a comment on what that buys you for various
10 scenarios.

11 MR. ROSS: Let me get a couple of words in, and Tom
12 will finish up.

13 The inerting argument has two points to it. It's
14 possible to post-inert; that is at some time after the accident,
15 but before the hydrogen evolution is presumed to start, you
16 could either inject CO₂ or halon. This would mean that you
17 could leave the equipment where it is, whereas with the other
18 inerting, pre-inerting, you might have to move in the design
19 some of the equipment around so you could get maintenance access.

20 The advantage of pre-inerting is that you start out
21 with the containment at one atmosphere and then the only thing
22 that's going to raise the containment pressure is the hydrogen
23 evolution which would be about another atmosphere, plus whatever
24 the presumed accident dose. If it's loss of coolant, you'll
25 get some more there also.

1 The post-inerting disadvantage is that you will
2 dump in about an atmosphere of whatever you are dumping in so
3 the final or the peak pressure will be about that much higher
4 so there is some pros or cons to either inerting. But in either
5 case, the calculation peak containment pressure is substantially
6 below what it would otherwise be for this assumption.

7 I think Tom --

8 MR. MURLEY: Harold asked us to look at what would
9 be the impact on risk reduction from these features that we are
10 proposing. There has been a study done for Grand Gulf, which is
11 a Mark III, and we looked at the dominant accident sequence,
12 and I might add that Bob Bernero's staff did a good part of this
13 work, and it appears that we can get a substantial risk reduction
14 through these features.

15 The main feature is the vent. The accident sequence
16 that dominates risk for Grand Gulf was a loss of decay heat
17 dissipation, in which case you get an adiabatic increase in
18 pressure to the point where it ruptures and just by having a
19 vent, you can relieve that pressure, and you've got days, really,
20 to restore your decay heat capability.

21 So we think that risk which came out to be about four
22 times 10 to the minus four per year probability of core melt,
23 that can be reduced so it's negligible. So then you get down
24 into the range that are at least an order of magnitude less.

25 Nevertheless, one has to consider a mitigation system

1 that contains the features of hydrogen control, filtered
2 venting, and some increased design pressure. It's not totally
3 clear what the increase in design pressure buys us as a matter
4 of fact. If we use venting as a technique. But clearly it
5 allows some margin against pressure pulses from steam explosions
6 or hydrogen burn, if there were a hydrogen burn. And it also,
7 as Harold mentioned, allows a policy of no anticipatory venting.

8 That is, it allows you to put in an interlock type
9 system that the operator could not vent until he was sure the
10 core was in danger.

11 With ice condensers, it's a little more complicated,
12 because the main contributors to risk there bypass the containment
13 altogether. The main contributors, interfacing systems,
14 where you have a low pressure injection system, interfacing
15 with a high pressure system, and the valves fail. We think that
16 we can reduce that to a negligible level just by design features.

17 CHAIRMAN AHEARNE: By what? Say that again.

18 MR. MURLEY: By design features.

19 CHAIRMAN AHEARNE: Such as?

20 MR. MURLEY: Multiple valves. And more frequent
21 testing. Then one gets into the more classical cases of core-
22 melt which are --

23 COMMISSIONER HENDRIE: Is that the Surry alpha
24 sequence?

25 MR. MURLEY: It's the event V.

1 COMMISSIONER HENDRIE: I thought we cured that, had
2 taken it out of these damned models.

3 COMMISSIONER GILINSKY: These are the real experts
4 talking.

5 (Laughter.)

6 MR. DENTON: We keep trying to cure it, and I thought
7 we had several times, but it's still not fully cured.

8 MR. MURLEY: I would say for the purposes of this
9 discussion, it will have been cured. So there is another one, if
10 you are interested, but it's unique to the ice condenser, and
11 that is there is a drain line from the upper compartment to the
12 lower -- the emergency sump on the lower containment, and the
13 containment spray and the reactor recirculation system both
14 draw from the sump in the bottom, and the drain is closed
15 during refueling, and if the operator were to inadvertently
16 leave that drain closed, he'd wind up pumping all the water up
17 into the upper compartment and not draining back down.

18 That's one of those fun-y sequences that you really
19 get at through this kind of risk assessment technique. But
20 again that is a simple matter to change, either through design
21 or procedures or both. If one removes those first two, then
22 you are into the small loss-of-coolant accident with ECCS
23 failure, the classical type of meltdown.

24 Those are the possibilities in the range of about 10
25 to the minus 5, I would say. Again my remarks would apply that

1 these risks can be reduced also by an integrated system, hydrogen
2 control system, some kind of filtered venting, and some increase
3 in design pressure.

4 Let me point out with regard to the vent, it is not
5 a simple matter to specify that. It's one thing to just say
6 three foot hole, but where you leave and what you leave on the
7 other side of it is also important, because you have to be able
8 to vent somewhere, and you can't just leave a hole in a brick
9 wall. I suppose that's obvious.

10 Also whether it's downstream of the suppression pool
11 is also a matter that we have to look at. So there are some of
12 these, you might call them subtleties, that still remain open,
13 I think.

14 CHAIRMAN AHEARNE: Do you have questions?

15 COMMISSIONER GILINSKY: I forget where we were.

16 MR. DENTON: I guess we got off on this --

17 COMMISSIONER GILINSKY: A display of virtuosity on
18 both sides of the table.

19 MR. DENTON: -- what might be the outcome of a rulemaking
20 in this area, and I -- in my discussions with the committee, I
21 had dealt only with pressure capability and did not raise the
22 possibility that inerting is also going to be a design concept.

23 COMMISSIONER GILINSKY: It seems to me the floating
24 plants are more or less in the position of Mark III applications
25 that haven't yet come in the door.

1 MR. DENTON: Well, except that -- we keep trying to
2 finish the Mark III -- I mean the floater. They do have a
3 pending application. They have agreed to put in core catchers.

4 COMMISSIONER GILINSKY: Yeah, but there isn't the
5 utility commitment. There isn't any plan for a specific --

6 CHAIRMAN AHEARNE: But I thought it was still the
7 context of the -- the previous approach that had been taken to
8 try to encourage manufacturers to get manufacturing licenses.

9 COMMISSIONER GILINSKY: I guess what I'm saying is
10 that imposing requirements, I think I would be -- would think
11 about this a little bit more, at least tentatively be less
12 inclined to be constrained by the existing design. In setting
13 the requirements for the ability to cope with hydrogen, I'm not
14 sure I wouldn't do the same thing on the Mark III. But I do see
15 a greater degree of commitment to those plants which I think
16 needs to be taken into account.

17 CHAIRMAN AHEARNE: Joe?

18 COMMISSIONER HENDRIE: Do you really need three feet
19 on that vent? That sounds like a hell of a hole.

20 MR. DENTON: Well, I don't think it was necessarily
21 going to be all in one hole. It might be several smaller pipes
22 with that equivalent area. But let me ask one of the Staff to
23 discuss how we arrived at that.

24 This is coming out of some of our --

25 CHAIRMAN AHEARNE: A three-foot diameter containment

1 penetration.

2 MR. DENTON: We mean in the equivalent. It's based
3 on the stuff we have been doing on Zion and Indian Point.

4 COMMISSIONER GILINSKY: But let me ask you again, do
5 you have a view on what sort of requirements completely new
6 applications ought to meet? Or are you -- I'm really asking,
7 do you want to venture a view? I don't want to force one out of
8 you, if you're reluctant.

9 MR. DENTON: Once again we're getting out in front on
10 this one on the technology. We haven't completed that look at
11 the filtered containment venting that we are trying to get at
12 in Sandia. It's come a long way and people are beginning to
13 decide it's not a three-inch diameter, sort of equivalent, or a
14 30 foot. But we have not been able to -- it's hard to defend
15 three feet plus or minus 25 percent, some number. It's just to
16 give us some capability and put these flanges in the right place,
17 as Tom has said, so that if we need them, we will have something
18 to use.

19 COMMISSIONER GILINSKY: I was thinking more about
20 the question of culmination of containment sizes. You know,
21 in talking with the Germans that were over here, their contain-
22 ments are bigger than our PWR containments, and have a design
23 pressure of 90 pounds. So we are really talking about very much
24 less here.

25 It seems to me if someone were beginning to design a

1 reactor at this point, I would urge them to go to a larger
2 and stronger containment, and to the extent that we can give
3 people some guidance, I think it would be helpful if there is
4 anyone out there who is thinking about moving forward, so we
5 don't end up in a --

6 CHAIRMAN AHEARNE: Trying to figure out how to make --

7 COMMISSIONER GILINSKY: Having him match when he
8 finally comes in the door.

9 MR. DENTON: I certainly agree with big strong
10 containments. They provide a lot of protection. At the same
11 time, we may find ultimately through our Limerick risk study
12 that the Mark III for a lot of scenarios offers a lot of risk
13 reduction, because the isotopes do come bubbling through water.
14 So I wouldn't want to decide automatically that that type of
15 containment and total risk isn't as good as a big dry one.
16 If it were properly designed to handle the hydrogen problem.

17 CHAIRMAN AHEARNE: Joe?

18 COMMISSIONER HENDRIE: I guess I -- as a matter of
19 curiosity, on the barge plant, OPS, does anybody remember,
20 is there a shield building around that containment?

21 MR. EISENHUT: I don't think so.

22 VOICE: Yes, there is.

23 (Laughter.)

24 MR. EISENHUT: They are checking right now.

25 (Laughter.)

1 COMMISSIONER HENDRIE: It's a matter of -- give me a
2 call some time. Let's not worry about it now.

3 Final comment, a comment, I guess, more for my colleagues
4 than to the Staff. It seems to me that the general approach
5 here is an appropriate one, and I think getting this onto rule
6 form rather than simply engraving it on the pennants which we
7 fly from the battlements in hope that people will observe them
8 in windy days, seems to me a good workmanlike way of getting on
9 with things.

10 So I would --

11 CHAIRMAN AHEARNE: Sam, cancel the order for the flags.

12 (Laughter.)

13 COMMISSIONER HENDRIE: I would offer encouragement in
14 that direction, and what I would suggest with regard to the
15 specific provisions on containment, I think it would be useful
16 to let the ACRS and the Staff and other experts chew on one
17 another and meet again as soon after that interaction has taken
18 place as possible, and then come to what I would hope the
19 Commission see its way clear to doing, which would be a formal
20 vote and approval of the recommendations.

21 But for myself, certainly -- and I encourage the
22 similar view on your part -- why, for this morning I would say
23 yeah, let's assume we're going down this line. We can get
24 started on the parts of 0718 that need tuning up on other
25 language and so on, and final decision to come after you thrash

1 out some of these details which, by the way, I am --

2 CHAIRMAN AHEARNE: Peter?

3 COMMISSIONER BRADFORD: Do you-all have a view as to
4 what a license will look like, assuming that the Commission
5 approves the steps? That is, will a CP still permit you to
6 build a BWR on a PWR license, except that it has to have a
7 three foot hole and reliability study?

8 CHAIRMAN AHEARNE: I guess that's a two-part question.
9 The first question, is it true that your current license
10 would allow a EWR to --

11 COMMISSIONER BRADFORD: I said last time it wasn't,
12 but Joe corrected me.

13 (Laughter.)

14 Joe objected to my being overly restrictive.

15 CHAIRMAN AHEARNE: Harold, is the license such that
16 you could build a BWR on a PWR site?

17 MR. DENTON: Not in my view.

18 CHAIRMAN AHEARNE: Pardon me?

19 MR. DENTON: Not in my view.

20 CHAIRMAN AHEARNE: Thank you.

21 MR. DENTON: But many, many years ago, we did have
22 an example where a utility changed the planning type, and we
23 had not been specific in that area, and were sort of adding to
24 the technical specifications for a plant, something called
25 design features, just to be clear. But certainly the

1 construction -- it depends on whether you are asking a
2 Commission or legal question or technical question.

3 COMMISSIONER BRADFORD: First of all, are you planning
4 to put these requirements in the construction permit?

5 MR. DENTON: I see that many of these requirements
6 are required implementation post-CP. There are things where
7 you don't -- you wouldn't complete the reliability study
8 prior to issuance of the CP. So they'd either be in the license
9 as license conditions, as Bob just described the one on risk
10 assessment, or they would have to be so carefully said in the
11 Commission's regulations that they would be unnecessary in the
12 license. But one way or the other, many of these would require
13 actions by the licensee following issuance.

14 MR. PURPLE: But I think, Harold, a large majority of
15 them are things that are done prior to getting the CP. They
16 are things that he describes in his PSAR upon which the Staff
17 reaches a judgment before it writes its Safety Evaluation that
18 a proper commitment is made, or a proper conceptual design or
19 a certain feature is spelled out.

20 COMMISSIONER BRADFORD: Except we haven't necessarily
21 held people to those commitments in the past.

22 MR. SHAPAR: If you want to make it mandatory, it
23 could be done either in the regulation itself or as a specific
24 CP condition.

25 CHAIRMAN AHEARNE: I think Bob's point, though, is there

1 are a number of things that have to be done before the CP is
2 issued. They have to be done in the submission.

3 MR. SHAPAR: If they weren't done, then they wouldn't
4 get the CP.

5 CHAIRMAN AHEARNE: Well, then, Peter's question would
6 be what would you turn to, to show that that has to be done.

7 COMMISSIONER BRADFORD: Well, let's take quality
8 assurance. Let's say they make a commitment to what seems to be
9 an acceptable quality assurance program. At the moment, what
10 is it that prevents them from changing the QA program during
11 construction?

12 MR. DENTON: There's nothing unique with regard to
13 this and that is you --

14 COMMISSIONER BRADFORD: I understand that;

15 MR. DENTON: We talked before about what are the CP
16 restraints.

17 COMMISSIONER BRADFORD: What's unique is that we
18 are considering resuming issuing construction permits and
19 maybe we will take advantage of the experience of the last
20 year, year and a half, in the form in which we do it.

21 MR. DIRCKS: I think maybe there are two tracks here.
22 We have got the quality assurance program, which I guess they
23 described in the PSAR, and you're right, they could make
24 changes in it as of today. But we are working on this other
25 rule -- and correct me if I'm wrong, Howard -- that would require

1 them now to notify us of any changes in the QA program during
2 the course of construction and to make any changes that --
3 anything they have committed to in the PSAR, they would have
4 to inform us if they changed it during the course of construc-
5 tion. Is that right? I think that's a rule Standards is now
6 working on.

7 MR. SHAPAR: Of course, there is a generic problem
8 which I think you raised about how we treated CPs generally.

9 COMMISSIONER BRADFORD: Yes. With regard specifically
10 to QA. That's another issue that is mentioned in here as well.
11 If the Staff does think it's a good idea to require that
12 changes of significance in the QA program be called to our
13 attention, or be approved by us at the time that they are made,
14 it seems to me to be worth considering putting that in the permit.

15 CHAIRMAN AHEARNE: Actually, wouldn't it be better
16 that significant changes of any kind -- that's the point, isn't
17 it?

18 COMMISSIONER BRADFORD: Yes, exactly.

19 CHAIRMAN AHEARNE: It's any significant change has to
20 be cycled through.

21 COMMISSIONER BRADFORD: Yeah.

22 COMMISSIONER HENDRIE: At least if it falls within
23 our regulatory --

24 COMMISSIONER BRADFORD: Yes, significant as to safety.

25 COMMISSIONER HENDRIE: Safety or environmental

1 protection, I presume.

2 CHAIRMAN AHEARNE: Whatever is the reach of the license.

3 COMMISSIONER HENDRIE: Yes.

4 CHAIRMAN AHEARNE: Our agency's authority, whatever
5 significant change in that should have to come back. I think
6 that's the point, isn't it?

7 COMMISSIONER BRADFORD: Yes.

8 MR. SHAPAR: For notification or approval.

9 CHAIRMAN AHEARNE: I guess the difficulty is this,
10 that we probably all agree the difficulty is in getting the
11 words, but there obviously are some levels at which it's
12 just notification. There are a lot of other levels at which
13 a fundamental significance would have to be for approval,
14 because they are the kinds of things that had that changed
15 situation been the case at the time of the initial review of
16 the initial approval might not have been given, or at least
17 it would have had to have been weighed differently. And so
18 philosophically it's probably easy. It's difficult to translate
19 it into regulatory language.

20 COMMISSIONER HENDRIE: Or if you wanted to go that
21 way, you could cover it by notification requirement, and then
22 the Staff would have to look at notifications; when the project
23 manager found one that struck him as significant in terms of
24 the safety analysis, why, it can be flagged up the line to the
25 director and, if necessary, hold till approved order issued.

1 CHAIRMAN AHEARNE: I guess the point we are revisiting
2 here is where I'm sure all of you have been there many times in
3 this particular group. We are on the issue of pilings, as I
4 recall.

5 COMMISSIONER BRADFORD: Well, that started it, yeah.
6 I wouldn't propose to revisit the pilings at the moment.

7 CHAIRMAN AHEARNE: Because that was very similar to the
8 description that was just given here. It was an item that
9 wasn't specifically going to have to come to the Commission,
10 but the project manager decided that maybe that was a big
11 enough change that perhaps things ought to hold while the Staff
12 reviewed it at length.

13 MR. DENTON: I guess the guidance in that area was
14 the principal architectural design features with some magic
15 phrase that we used to interpret.

16 MR. SHAPAR: Well, that's one of the principal issues
17 in connection with this general rulemaking, whether or not
18 principal architectural engineering criteria are a good enough
19 piece of litmus paper.

20 CHAIRMAN AHEARNE: And defined well enough so that
21 it's a --

22 MR. SHAPAR: One of the options is to better define it.

23 COMMISSIONER BRADFORD: And the particular area of
24 quality assurance was one that would fall outside of that envelop
25 in all likelihood, but it certainly is one that you would want

1 to try to correct at the operating license stage. That is if
2 the licensee had made a significant change in his QA practices,
3 which seemed in retrospect not to have been wise, presumably
4 whatever piece of the plant that applies to, once it's built,
5 it would be a lot easier to have dealt with it at the time the
6 change was made.

7 MR. DIRCKS: If you're interested in following up on
8 that QA change, Dick Vollmer has been sitting back there, he
9 could fill us in.

10 COMMISSIONER BRADFORD: Well, I don't want to necessarily
11 pursue in a lot of depth today. We are going to have some more
12 time on it. But that is -- the question of what ought to be
13 in these new permits, perhaps with particular reference to QA,
14 is of concern.

15 Let's see, Joe, you made a proposal with regard to
16 approving this on a rulemaking basis. Did you have something in
17 mind as distinguished from pennants on the roof? Did you have
18 something in mind with regard to the issue that gave us a problem
19 with OLs, namely litigability of issues above and beyond this?

20 COMMISSIONER HENDRIE: No. I had thought that we
21 would probably end up treating this like this, and it would be
22 a guidance which was not binding in a rulelike sense, but
23 simply an indication of Commission opinion. But people are
24 free to argue and that it would get accompanied by this same sort
25 of policy statement, hopefully, as version, presumably, two of

1 the OL case. I had forgotten here recently that when we did
2 go out for comment on this thing, that we did put it out in a
3 way that would warn people we might want to make a rule out of
4 it, so that they were on notice, and we now have that option,
5 and it seems to me that having that option is just fine. It
6 just saves a lot of haggling about it. I'd go ahead and make it
7 a rule.

8 As a matter of fact, some of those OL things might
9 usefully look to see whether with appropriate, you know,
10 publication for comment, that one couldn't get rules on those,
11 and just avoid extensive argument about necessary or sufficient,
12 either way.

13 CHAIRMAN AHEARNE: Other questions? Peter?

14 I guess somewhat in the same line as Joe, I prefer
15 to have the Staff at least begin to prepare it as a rule, leaving
16 open the particular two issues: one on the containment question,
17 which -- or the hydrogen control question is probably a better
18 way to describe it. And the second I would like to have some --
19 I agree with Peter's point, that the big difference here is that
20 we are starting CPs again, and one of the things we apparently
21 have been trying to do is to get some mechanism imbedded into
22 the CP that when major changes are made, it requires the NRC
23 to take a review and an action on it. So those are the two
24 areas that I would like to have a little more discussion on,
25 and perhaps when you are going to come back on the containment

1 issue, you could come back on that one also. But except for
2 those two, I would like the Staff to start developing another
3 rule.

4 COMMISSIONER BRADFORD: That sounds fine. I guess
5 I'm still puzzled as to just what the business of using it as a
6 rule means, that would -- Joe, I understood you to say it would
7 be Commission guidance, but it would also be a rule. Now --

8 COMMISSIONER HENDRIE: No, no. I was saying I had
9 been thinking of this as one just like the OL list, with a
10 policy statement, with no more authority than that one. But I
11 had forgotten that when we went out on public comment on this
12 one, we did say, look, we may want to make a rule out of this,
13 so please comment, have that in mind in your comments, and that
14 we now have that option without having to go out for comment.
15 And it seems to me that that was a wisely taken step at the
16 time, and that-- you know, I think whether one views the previous
17 effort one way or the other way, I think there is merit -- I
18 think everybody would agree there is merit that where we
19 can agree that a particular solution to a safety problem is
20 one which we think is clearly satisfactory, that rather than
21 have people argue about it when there are so many other things
22 that could usefully be argued about, that we ought to go to
23 rule on it, simply establish that that's the requirement, people,
24 toe the line on it. You know, you just don't have to hassle
25 about it.

1 I would regard --

2 COMMISSIONER BRADFORD: I'll keep an open mind on that.
3 It would certainly be more clearly legal in this case than
4 previously, and I just wanted to think a little more on it,
5 whether I think it's wise.

6 CHAIRMAN AHEARNE: Any others? All right. Thank you.

7 (Whereupon, at 3:42 p.m. the meeting was
8 adjourned.)

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NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the
COMMISSION MEETING

in the matter of: Public Meeting - Discussion of Near-Term Construction
Permit Requirements

Date of Proceeding: January 13, 1981


Docket Number: _____

Place of Proceeding: Washington, D. C.

were held as herein appears, and that this is the original transcript
thereof for the file of the Commission.

ANN RILEY

Official Reporter (Typed)



Official Reporter (Signature)

January 9, 1981



SECY-81-20

POLICY ISSUE
(Commission Meeting)

FOR: The Commissioners

FROM: William J. Dircks, Executive Director for Operations

SUBJECT: POLICY ON PROCEEDING WITH PENDING CONSTRUCTION PERMIT AND MANUFACTURING LICENSE APPLICATIONS

PURPOSE: The purpose of this memorandum is to obtain Commission approval of a policy on proceeding with the licensing of the pending construction permit (CP) applications and the manufacturing license (ML) application.

BACKGROUND: In March 1980 the staff initiated an effort to identify the necessary and sufficient set of post-TMI requirements for the six pending applications for eleven construction permits and the pending application for a manufacturing license for eight floating nuclear plants.

The preliminary results of this effort were described in Commission Paper SECY-80-348, dated July 28, 1980 which was discussed at an August 1, 1980 Commission meeting. The Commission approved the staff proposal to obtain public comment on the set of requirements described in SECY-80-348.

Those proposed licensing requirements were then embodied in a draft report issued for comment, NUREG-0718 "Proposed Licensing Requirements for Pending Applications for Construction Permits and Manufacturing License."

A notice of proposed rulemaking was prepared and published in the Federal Register (45 FR 65247, October 2, 1980) inviting public comments on:

(1) The proposed requirements in NUREG-0718

Contact:
A. Schwencer
X27411

DUPLICATE

dup
8101140380

SECY NOTE: This paper is scheduled for discussion at an open Commission meeting on Tuesday, January 13, 1981. It is identical to the advance copies distributed on the evening of January 9, 1981.

① (18) 15

DOCKET NUMBER
PROPOSED RULE PR 50
(45 FR 65247)

October 20, 1980



C. W. Rowley
623 Arrowhead St.
Sand Springs, OK 74063

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

ATTN: Pending Construction Permit (CP) Applications

Gentlemen:

Your announcement of 9-25-80 and published by the Atomic Energy Clearinghouse on 10-13-80, in Vol. 26, No. 41, pages 54-55, discuss three options for resuming the issuance of CPs.

I highly recommend that option #1 be implemented for CP application currently on file, and then backfit the requirements of NUREG 0660, as has been done with the OL applicants and operation plants. This allows the industry to get on with the business of building power plants to reduce our dependence on foreign oil. (1)

As a parallel effect, create a NRC task force to implement options 3 or 2 at later dates, depending on results of rule making processes. Again, this would allow the construction of needed power plants, but at the appropriate future date, feedback in the PSARs the requirements of NUREG 0660 and other subsequent requirements.

dup #
88-11050251
DUPLICATE

CW Rowley

POOR ORIGINAL

Acknowledged by card...

POOR ORIGINAL

Bechtel Power Corporation

Engineers—Constructors

Fifty Beale Street
San Francisco, California

Mail Address: P.O. Box 3955, San Francisco, CA 94119



November 14, 1980

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

LOOKER NUMBER PR 50
PROCESSED RULE 45FR65247

4

Attention: Docketing and Service Branch

Subject: Comments on the Proposed Changes
to 10 CFR Part 50, Federal
Register Notice of October 2, 1980

Gentlemen:

The Federal Register dated October 2, 1980, contains the Advance Notice of Rulemaking on Licensing Requirements for Pending Construction Permit (CP) and Manufacturing License (ML) Applications. Bechtel Power Corporation wishes to comment on the concepts and issues raised by this notice and NUREG-0718 referenced therein.

We believe that Option 3 should not be used for resumption of Construction permit licensing. The commitments required in areas subject to rulemaking have a potential for significantly delaying the CP licensing process; it is not evident that these commitments will result in significant safety improvements.

NRC's own review of the pending construction permit applications has been suspended since March 29, 1979. Since that time, 10 plants, involving 15 units, have been cancelled. Promulgation of the proposed licensing requirements as issued for comment increases the likelihood of further cancellations. We believe that the comments on the requirements should be expeditiously reviewed, reconsidered, and used, and that the final requirements be issued promptly so CP licensing can be resumed.

Attached are our detailed comments on the issues raised by the Notice of Proposed Rulemaking.

Sincerely,

A. L. Cann
Manager of Engineering
Thermal Power Management

Dup # 801204044
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Approved by: [Signature]

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FNP-PAL-127
RECEIVED NOV 17 1980
45 FR 6524



November 17, 1980

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Docketing and Service Branch

Gentlemen:

Offshore Power Systems has reviewed the notice of proposed rulemaking, "Proposed Licensing Requirements for Pending Construction Permit and Manufacturing License Application" (45 FR 6525, October 2, 1980). This proposed rulemaking is in fact a statement of proposed Commission policy relative to near-term - Construction Permit and Manufacturing License applications. Our comments on this proposed policy statement are submitted for your consideration.

The proposed policy statement sets forth three options which the Commission has under consideration for proceeding with licensing of near-term construction permit and manufacturing license projects. These options are:

1. Resume licensing using the pre-TMI construction permit requirements augmented by the applicable requirements identified in NUREG 0660.
2. Take no further action on the pending applications until the rulemaking actions described in the Action Plan have been completed.
3. Resume licensing using the pre-TMI construction permit requirements augmented by the applicable requirements identified in NUREG-0660 and require certain additional measures or commitments in selection areas (e.g., those that will be the subject of rulemaking).

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Offshore Power Systems believes that either Option 1 or Option 3 provides a reasonable basis for the resumption of plant licensing in the near future with no sacrifice

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PUBLIC SERVICE COMPANY OF OKLAHOMA
A CENTRAL AND SOUTH WEST COMPANY

PSO

PO BOX 201 TULSA OKLAHOMA 74102 918 555-0511

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DOCKET NUMBER PR 50
PROPOSED RULE 45FR 65247

November 17, 1980

Samuel J. Chalk
Secretary to the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Docketing and Service Branch

Public Service Company of Oklahoma ("PSO") submits the following comments in response to the NRC Notice of Proposed Rulemaking* published in the Federal Register on October 2, 1980, (hereinafter referred to as the "Notice"). This Notice, which is entitled "Proposed Licensing Requirements for Pending Construction Permit and Manufacturing License Applications", would directly affect PSO's application (on behalf of Associated Electric Cooperative, Inc., Western Plains Electric Cooperative and itself) for permits to construct and operate the Black Fox Station (U.S. NRC Docket No. STN-336 and 337) which consists of two 1150 Mwe boiling water reactors to be located near Tulsa, Oklahoma.

Regulatory action on PSO's application which has been pending before the NRC since the winter of 1975, has been suspended since March 28, 1979 -- the date of the Three Mile Island Unit 2 (TMI-2) accident. Since that date, no progress has been made by the Atomic Safety and Licensing Board toward issuing its decision on the pre-TMI hearing record (which was closed February 13, 1979) or by the NRC staff toward reviewing PSO's commitment to implement the lessons learned from TMI-2 into the construction and operation of the Black Fox Station. The proposed rulemaking represents the first action by NRC to establish post-TMI licensing requirements for construction permit and manufacturing license applications frozen since TMI, and, if approved by the Commission, would authorize the resumption of NRC action on the Black Fox application.

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46 Fed. Reg. 65247

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