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COMMISSION MEETING

In the Matter of: BRIEFING ON NEAR TERM REQUIREMENTS FOR CONSTRUCTION PERMITS FOR POWER REACTORS

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BRIEFING ON NEAR TERM REQUIREMENTS

FOR CONSTRUCTION PERMITS FOR POWER REACTORS

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Nuclear Regulatory Commission

Room 1130

1717 H Street, N. W.

Washington, D. C.

Friday, August 1, 1980

The Commission met, pursuant to notice, at 2:03 p. m.

BEFORE:

JOHN F. AHEARNE, Chairman of the Commission

VICTOR GILINSKY, Commissioner

NRC STAFF PRESENT:

L. BICKWIT, General Counsel

R. PURPLE

H. DENTON

J. SCINTO

A. KENNEKE

E. CASE

J. GALLO

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P R O C E E D I N G S

CHAIRMAN AHEARNE: The Commission meets this afternoon to hear a proposal from the Director of Nuclear Reactor Regulation regarding the policy and proceedings pending construction permit and manufacturing license applications.

This is another step in the long development of a number of action items following Three Mile Island, the accident at Three Mile Island, and we have given the staff direction on what to do with respect to resuming review of operating license applications.

We then asked for the staff to provide a recommendation on what to do with proceeding with construction permits. Harold?

MR. DENTON: Bob Purple will be our spokesman. He has a 15-minute presentation to summarize the process we went through and the options we identified. Let me turn it directly over to Bob.

MR. PURPLE: If I might have the first vu-graph.

(Slide.)

MR. PURPLE: Just by way of review, and in a sense to repeat what you just said, Mr. Chairman, the Commission has gone through the establishment of the needed requirements for operating reactors. Those took place primarily in the summer of 1979, and are listed on the

board, the major elements. And as you say, we have now determined what the necessary and sufficient set of requirements are for operating licenses, which includes the NUREG-0694 and also includes the Commission's endorsement on what was called Proposed Dated Requirements, those that would have an implementation date beyond the first of this calendar year.

The question now was what to do and what is the proper set of requirements and timing to resume the licensing review of construction permit applications which have been suspended since March of 1979, since the TMI 2 accident.

We considered a range of options -- May I see the next Vu-graph, please?

(Slide.)

MR. PURPLE: Just to put a bound, a total envelope on the range of options, the first option is really an unacceptable one, but it puts the lower bound, and that is the idea that one might proceed with reviewing CP's using the pre-TMI licensing envelope, taking no account of the TMI incident. We certainly would not recommend that.

At the far end, Option B would be one that would say, let's indefinitely or postpone consideration of CP applications until such time as the major rulemaking that is evolved from the TMI evaluation is complete and the new

requirements, whatever they may be, are in place.

Now, between those two extremes, Options B --

CHAIRMAN AHEARNE: Would you say a few words about why you think -- I can understand the first one as being --

MR. PURPLE: I have not discarded the last one as being unacceptable, and I will come back to it with a few words about the pros and cons.

In between those two extremes would be Options B and C, which says, surely impose the pre-TMI licensing envelop modified to include those licensing items now required for NTOL's. Basically what is in 0694, and depending on what year you are in when you are reviewing it.

The third option, Option C, is similar to the second, that is, pick up on the NTOL type requirements, use the pre-TMI licensing envelop, but then select a few special topics for special consideration, and those namely are the topics that are the subjects of rulemaking that may go on for several years before they are finalized.

Now, the relative advantages and disadvantages of at least the last three options, Option B, which makes -- the pending CP's pretty much the same as the NTOL's that we are licensing. This would minimize the review and construction impact.

It is probably the quickest route to having additional nuclear capacity on line for these plants. The

disadvantage is that it fails to capitalize on the opportunity you have to achieve significant safety improvements in a plant that has not yet been built, although it has been in each of the six cases largely designed.

The third option, Option C, which pulls out some additional special features for special consideration, the big advantage of that is that it would retain the flexibility to be able to incorporate into the design of these plants certain significant safety improvement features that may result from the rulemaking during the pendency of the construction period by leaving open -- by not foreclosing during the construction period the ability to put in some of these features.

A disadvantage of Option C is that it still retains in the eyes certainly of the applicants and the builders of the plants some degree of uncertainty because it is not easy to predict the outcome of rulemaking with any perfect certainty.

Option D, of course, would provide the maximum potential safety improvements. It allows the rulemaking to run its course, the various rulemakings to run their courses, better assuring --

CHAIRMAN AHEARNE: It eliminates the uncertainty.

MR. PURPLE: It certainly eliminates the

uncertainty, but it does probably mean a minimum of two, maybe three years of delay, depending on the number of rulemakings.

The next vu-graph, please.

(Slide.)

MR. PURPLE: Our proposed approach is one that selects Option C, and which we feel is the most suitable. First of all, we have to -- and that was composed of the pre-TMI design envelop or review envelop, and then secondly, I said it would be the pulling out of the action plan items that are appropriate, so the first two bullets up there are referring to that portion of the definition of what is needed, and that is to go into the action plan item by item and determine, first of all, which items are actually applicable to CP's, and secondly -- the second bullet, then, look at each one and decide what kind of information should we require to be available for our review and consideration prior to issuing the CP.

Taking both of those bullets, then, and turning it into a NUREG document, a new NUREG document which we presently have in the typewriter -- I am sorry to say we don't have in front of you right today -- but it is basically a review of the action plan, defining how much information we need for each of the actions in the action plan that are appropriate for CP's.

CHAIRMAN AHEARNE: Is it introducing any new items?

MR. PURPLE: No new items. No new items. The only thing it may introduce in the sense of being new, you may recall that there were in the action plan things like Decision Group C items, things for which in the sense of talking about operating license applications or operating reactors, we said we would not impose those until we had brought them forward to the Commission for separate consideration.

We do take some of those Decision Group C items and we look at them in the sense of a CP and ask -- our definition of what we want from an applicant is that he address the subject of that based on the state of the art or the state of the requirement as it may exist in that year.

CHAIRMAN AHEARNE: Can you give me an example?

MR. PURPLE: Control room design, where we have a rather long range requirement. We have not established new requirements, but we like applicants to at least address the degree to which they are going to advance the state of control room design in their control rooms.

So, they would be asked to speak to things that we aren't today necessarily asking OL's and CR's to speak to, so there would be the NUREG document which is the subject of a Federal Register notice that was -- that was a draft attached to the Commission paper.

We then identified four areas requiring significant -- significant areas requiring policy decisions. Since we identified these four, the Commission has acted on two of them, so they have become no longer items of debate.

You have approved a transition siting policy in connection with the new siting rulemaking proceeding. We defined quite clearly what should be done with respect to new CP's of the type we are speaking of here today.

Let me pass, before I talk about those four items, and go on through this chart. The next chart will talk about the actual special requirements.

We propose that -- leave that one on, please. We propose that the NUREG document and the Federal Register notice which is in the staff paper describing the special requirements and what we think needs to be done be issued for public comment.

We are interacting with the ACRS, and after we have received the public comments and after we have completed our review with the ACRS, we would propose to return to the Commission with a final package of appropriate recommendations on what are the necessary and sufficient set of requirements for CP's.

CHAIRMAN AHEARNE: As I read -- You say the ACRS comments from their letter -- much of it is a description,

and the rest is a support of a recommendation to put staff resources on six items.

MR. PURPLE: But we anticipate, for example, this coming week we are meeting again with the Subcommittee of the ACRS, and anticipate, as they say at the end of the letter, that they will consider the matter further and work with us, you know, and come out with another letter where they have looked at it more substantively than they have yet.

So, it is not that letter I am speaking about. It would be others.

I see the vu-graph said from the May 6th letter. Sorry about that.

(General laughter.)

MR. PURPLE: That misled you. It is the later review, not just that letter.

CHAIRMAN AHEARNE: Okay.

MR. DENTON: They had identified six issues. We have only identified four. The other two are ones that we do not think have quite the weight that the four do, and those two that are on the ACRS list are not shown. They are picked up in our NUREG document.

MR. PURPLE: Yes, they are.

MR. DENTON: The action plan, control and design of management.

MR. PURPLE: In addition, we mention in the SECY

paper that there is an owner's group of the six pending CP's that have been interacting with us since they made that presentation of those six topics. The ACRS letter says the industry group says these are the six important ones. They at least on an informal level have agreed that it is not such a long list, and it is more or less the ones we have identified here.

MR. DENTON: It is important to recognize -- at least I envision this -- this only applies to pending applications before us. They are not quite a clean slate. The review is far advanced. The designs are -- this is not intended to apply to any application that is not before us.

CHAIRMAN AHEARNE: Would you intend to --

MR. DENTON: If someone were to come in with a brand-new one, I think we would have a cleaner slate to write on, and perhaps risk assessment would be a far more sweeping part of the original review. Here we have identified certain systems for risk assessment purposes. One of the bullets, for example. I see this as something less than a clean slate, but --

CHAIRMAN AHEARNE: When do you expect the next application?

MR. DENTON: My feeling is that I cannot state that.

CHAIRMAN AHEARNE: In other words, you don't feel

an overwhelming problem there because you would not apply this to new applications that have not yet been received?

MR. DENTON: That is correct. I was trying to characterize it properly, based on the utility executives I have talked to, the present universe of plants, which includes those before us, seems to them to represent all the plants that the NRC will have to deal with in the time frame up to about 1990.

CHAIRMAN AHEARNE: Another way of saying that is, in other words, they don't expect another application until 1990.

MR. DENTON: Until we get very close to 1990, and that is a very hazy picture.

(Whereupon, at 2:15 p.m., Commissioner Bradford entered the hearing room.)

MR. DENTON: I certainly have no indication that in the next few years we will have one.

CHAIRMAN AHEARNE: Very interesting.

MR. PURPLE: Put on the next vu-graph, please.

(Slide.)

MR. PURPLE: I said I would talk in a little more detail on the four special topics for which we think special requirements need to be imposed. I already mentioned in the siting issue that for SECY 9153 the Commission has already given instructions as to what is the transition policy for

just this class of plants, and of course we would require that to be done.

The most difficult, I think, of all of the four is the degraded core rulemaking. We would propose that first, since -- by the time review probably begins on these CP's, the interim rule very likely will be in place. We would ask obviously -- then the CP applicant would have to describe --

CHAIRMAN AHEARNE: If I could track that --

MR. PURPLE: Yes.

CHAIRMAN AHEARNE: -- Harold a moment ago said these are a number of plants for which the review has already begun.

MR. PURPLE: It in most cases -- it is essentially complete, and in many cases the hearing is closed and so forth.

CHAIRMAN AHEARNE: And I would say again then --

MR. PURPLE: We have not yet defined what is a necessary set of conditions to now seriously evaluate and say yes, now we can issue CP's. I am saying there is a period of time before that. It is these requirements before that gets in place.

CHAIRMAN AHEARNE: I am trying to get the timing ther. When do you expect the interim rule to be in place?

MR. PURPLE: I expect the interim rule to be issued in August with a 30-day comment period, where

accelerating that as much as can be, I guess another month after that. We are probably talking October.

COMMISSIONER GILINSKY: Where do we stand with that?

MR. PURPLE: I say the interim rule should go out for public comment in August.

MR. KENNEKE: The paper is about to come to you.

MR. PURPLE: I don't think the paper is before you yet.

MR. SCINTO: It should come to the Commission soon.

CHAIRMAN AHEARNE: All right, so --

MR. KENNEKE: We have seen the pre-version.

CHAIRMAN AHEARNE: The paper should be here soon.

COMMISSIONER GILINSKY: Pre-version?

MR. KENNEKE: The final stage.

CHAIRMAN AHEARNE: You would expect that to be an interim rule proposal.

MR. PURPLE: Yes, and a rather short comment period, a 30-day comment period.

CHAIRMAN AHEARNE: I see. Okay.

MR. PURPLE: So that it is likely it could be in place -- if is not in the place by the time -- for one reason or another --

CHAIRMAN AHEARNE: I understand that.

MR. PURPLE: All right.

CHAIRMAN AHEARNE: I had a longer time frame in mind.

MR. PURPLE: That is one item we would ask for. The second is to the extent practicable, that applicants provide assurance that the options for meeting the final requirements from the rulemaking are not foreclosed.

CHAIRMAN AHEARNE: The final requirements. You mean, the rquirements would come in the final rule, not ones directed toward any actions in the interim rule.

MR. PURPLE: That is correct. The final rule.

CHAIRMAN AHEARNE: What do you mean by the phrase, "to the extent practicable?

MR. PURPLE: We are speaking, as Harold said, about a fixed class of plant which has basically their design drawings totally complete and reviewed. We believe it is not unreasonable to give the option to applicants to look at the various requirement that might flow from a degraded core rulemaking, and really the main focus of concern is the core retention feature, and to be able to make an argument to the staff that that feature, for example, would be an impracticable thing to try to put in now for that plant. This would be a case by case basis.

At the same time, they may be able to demonstrate that they can leave open the option for all the other features. We expect they can. I think their major

difficulty is in their core retention feature, which is a possible outcome of the rule, but we don't know that for a certainty yet at this point.

MR. DENTON: We discussed the foreclosure question before. Certainly if you don't know the outcome of a rulemaking, you cannot guarantee you will not foreclose something by going ahead, but our own judgment about where things will come out leads me to think there are actions you can take not to foreclose the first two items, namely, filter containment venting for operating plants, and hydrogen control is another one that is in the same sort of category.

The hardest one is the core retention. If we really knew what core retention devices were, or really knew what one looked like, we could deal with the question, but that is -- has always been a goal. So, we have tried to -- I viewed -- in each of these six plants, they are different. Some are BWR's, some are PWR's. It is a real mixture of plants. So, we would require each applicant to address all the things that he might do to avoid foreclosure of what the ultimate rulemaking might end up with, and we would be looking case by case, then.

CHAIRMAN AHEARNE: Are any of those six plants ice condenser?

MR. PURPLE: Yes, one of them is.

CHAIRMAN AHEARNE: I see.

MR. DENTON: But among the things, for example -- one of the issues in core retention is gas generation after the core melts through. Applicants could commit to using different sort of concrete and limestone which would minimize the generation of CO_2, so we think in each case there would be different things that might be done, that can be done for each design, that go a long way toward not foreclosing options.

COMMISSIONER GILINSKY: Which is the CP which is an ice condenser plant?

MR. PURPLE: I cannot find one that is.

COMMISSIONER GILINSKY: I thought there --

MR. PURPLE: I believe the only one is --

MR. DENTON: The manufacturing license.

MR. PURPLE: The manufacturing license.

CHAIRMAN AHEARNE: All right.

COMMISSIONER GILINSKY: Now, would this wait until the interim rule went out?

MR. DENTON: No, because we have identified the same issues as the action plan, so I propose not to wait. These are the three features that the action plan identified and the interim rule worked toward.

MR. PURPLE: It is a long term rule.

COMMISSIONER GILINSKY: Someone who is responding

to this rule going out, would you not have problems in complying with the request, even if we don't have a final interim rule?

MR. DENTON: Well, let me take a more specific example. Take filtered containment venting. We could require all these six to design and propose a filtered containment venting on the assumption that that is where the final rule is going to end up, but you ask yourself, should that -- is that really necessary? We cannot reject the --

COMMISSIONER GILINSKY: I am talking about the interim rule.

CHAIRMAN AHEARNE: I think his question really is, you are proposing, since we have read the paper and you know you will end up proposing a Federal Register going out to comment, and one of the comments is the handling of the degraded core rulemaking and its conformance to the interim rule. His question, I believe, is, don't you or do you think that people would have difficulty responding to that request for comments in the absence of seeing the interim rule going out?

COMMISSIONER GILINSKY: I don't know what I would do without my interpreter, but he has it exactly right.

(General laughter.)

MR. PURPLE: I think they would have to respond to -- if that were the case on the timing, they would then have

to respond to the version of the interim rule as it appears on the action plan, which spells out in pretty good detail what is going to be in the interim rule, or at least what the staff proposes be in the interim rule.

MR. DENTON: I think our proposal is based on the assumption that the rule would track along with the action plan. Therefore, we will know what is likely to --

CHAIRMAN AHEARNE: I gather the paper, which we have not yet seen, will essentially be tracking the action plan.

MR. PURPLE: Yes.

MR. DENTON: Yes. It is some -- it is somewhat disjointed. That is for sure. And that is a question we face since we started looking at this. The way to a final action. That is -- That is a bit uncertain. I guess what I am grappling for is to give some definitiveness to these pending applications so they can make whatever decisions they need to about whether they defer or continue their applications.

COMMISSIONER GILINSKY: What you are saying is, even though there is some uncertainty, they need enough guidance so they can get on and comply with these requests in a reasonable way that is going to be helpful for them and for us.

MR. DENTON: They definitely need some guidance.

We have not given them any so far.

COMMISSIONER GILINSKY: Yes.

MR. DENTON: And I think this will give them enough so maybe they can make their individual choices about what they would like to do with the application.

MR. PURPLE: The third topic is reliability analysis, and Harold has really already mentioned that, where we are asking -- we would ask CP applicants to perform reliability analyses of selected subsystems, more than we have asked of existing OL's, less than we would ask of a brand new CP that walked through the door, and this particular system we propose is spelled out in the staff paper.

MR. DENTON: We have identified the ten systems or so which we think we have a good developmental methodology and data base for and know how to really apply and get an answer back. We are not asking for a complete risk assessment from the ground up. We don't know quite what to ask for.

MR. PURPLE: In emergency preparedness, that one again is pretty well settled because there is now a rule on the street, as we first drafted this, we did not know when that rule would ever appear, and we had a certain set of requirements we would ask them to do, but now, of course, a CP applicant would simply comply with the applicable

portions of the new amended rule.

CHAIRMAN AHEARNE: Would that be primarily site location?

MR. PURPLE: Well, no, I think primarily the site location itself would be that which is handled --

CHAIRMAN AHEARNE: What -- what do you see as the applicable parts of the emergency preparedness rule -- applicable to the CP applications?

MR. DENTON: I think it would be some sort of demonstration that there is a reasonable assurance the rule could be met at the OL stage.

COMMISSIONER GILINSKY: We certainly want to know if there is anything that would keep you from complying with the rule.

MR. DENTON: I don't see you have to comply with the OL rule at the CP stage, but --

CHAIRMAN AHEARNE: I was wondering, other than the site location --

MR. PURPLE: I have not read from front to rear the emergency planning rule myself, but I did look at the front end of it, and there was a specific reference to CP's. It is my understanding there is a section in the new amended rule that spells out what the information requirements are, but I have not read that.

CHAIRMAN AHEARNE: Yes, it is just that most of

the rule applies to developments, procedures, requirements on both licensee and state and local governments that are much more germane to the operating licenses. It would be kind of hard do get those kind of commitments --

MR. PURPLE: Apparently it did call for expanded information base over what it used to be yesterday, for example.

CHAIRMAN AHEARNE: Yes.

MR. DENTON: Embedded in out concept is an important factor. If we were just concerned about accident prevention, we would not deal with Item 2. We would only deal with Item 3, improving systems tc prevent accidents by requiring in Item 3 not foreclosing this. It indicates our determination to improve the mitigation features of these plants, and not foreclose the implementation of that.

So, while some people have tried to drive us down the track of a safety goal, we are going down for prevention and mitigation.

CHAIRMAN AHEARNE: Yes. All right.

MR. PURPLE: That completes what I have to say or am prepared to say.

CHAIRMAN AHEARNE: And you would propose, then, to put out, as I understand it from your paper, a Federal Register notice which would invite comments on essentially what you have said plus comments on this revised version of

the action plan.

MR. PURPLE: That is correct.

MR. DENTON: The action plan itself for OL's is now out for comment with -- it would be appropriate to have this one in the same time frame since it interprets that action plan or CP's.

CHAIRMAN AHEARNE: Joe?

COMMISSIONER HENDRIE: Comment period? Let's see.

MR. PURPLE: Forty-five days.

COMMISSIONER HENDRIE: When can we be ready to move --

MR. PURPLE: You mean with the issuance of the Federal Register notice?

COMMISSIONER HENDRIE: Well, presumably --

MR. PURPLE: You mean afterward, to be able to move with resuming the review?

COMMISSIONER HENDRIE: It would take a while to compile comments.

MR. PURPLE: Yes, it will. Yes, it will, because they will have to be sort of coordinated with those from the -- coming in on the action plan itself, and the action plan comment period is 90 days. I would guess we are talking 90 days before we are -- on the order of three months before we are ready to be back here with a proposal for Commission approval to proceed with the licensing reviews.

COMMISSIONER GILINSKY: I don't have anything to add here.

COMMISSIONER BRADFORD: Harold, what are the resource implications of beginning to shift this potential amount of attention back towards CP's? Can you reach back into the budget discussions we have had over the last week or ten days, and say -- indicate what sorts of -- what sorts of impacts are involved?

MR. DENTON: I think the resources involved in putting together a formal proposal at the end of the comment period are small. We certainly would come back with a proposal.

COMMISSIONER BRADFORD: Right.

MR. DENTON: If the final policy of the Commission is along the lines we have suggested here, the resources are absorbable within our present budget, because there are only a few applications involved, and review of those applications against pre-TMI standards is essentially complete, and in many cases was, so we only would have to be looking at those commitments at the CP stage to do things at the OL stage where the action plan requires, and then we have to look in detail case by case for foreclosure and reliability assessments.

So, it would probably require a man year or two per application, depending upon how this works out in the

end.

COMMISSIONER BRADFORD: How does that --

MR. DENTON: I don't expect all of these pending applications to remain viable. I am not able to project how many might actually go through.

COMMISSIONER BRADFORD: What is the rough rule of thumb that you use in terms of man-years per CP application?

MR. DENTON: I think it is on the order of 12 man years, but that 12 is already in on these.

COMMISSIONER BRADFORD: I understand. I understand.

COMMISSIONER GILINSKY: I do have one point to raise. It seems to me that we ought to be taking a greater interest in how the vendor and the AE fit together in the construction of plants. We now recognize that parts of the plan we thought were less important turn out to be more important from the point of view of safety and so on, and we have asked that vendors and AE's interest themselves in procedures of the plant.

It seems to me that that is a point worth raising with applicants, what plans they have for closer integration of the efforts of the conflicting factors.

MR. DENTON: That is not listed in our -- that will be listed in our proposed document under the heading, I think, Management Attention During Construction, to make the

utilities play a much more direct role in integrating both the vendor and the steam supplier, and actually overseeing their product.

COMMISSIONER GILINSKY: You do have that on your list?

MR. DENTON: We have the management issue. I am not sure we can address in particular what you have asked, but we can do that.

COMMISSIONER GILINSKY: I think it might be worth setting that out.

MR. PURPLE: We can take care of that.

CHAIRMAN AHEARNE: Anything else?

COMMISSIONER BRADFORD: Now, are these -- are these plants ones that have been through the full standard review plan network?

MR. DENTON: I am pretty certain they are, but that is another area we can also clean up if we have not. These reviews of these are so recent, they probably have been. The standard review plan came into being in 1975.

COMMISSIONER BRADFORD: Right, and I guess I just don't know how it was applied to CP applications then pending.

MR. SCINTO: Across the board.

COMMISSIONER BRADFORD: Any CP application that was pending as of whatever that date was would have been

reviewed.

MR. CASE: Yes.

COMMISSIONER BRADFORD: With or without grandfathering?

MR. CASE: Without.

MR. DENTON: It would be my intention to --

COMMISSIONER BRADFORD: Joe?

MR. SCINTO: I know they would apply to any of the CP's that came in after that date, and I think all CP applications after that date, but that was some time in 1975.

Looking at this list, I cannot think of any of these CP's that have been around since 1975.

MR. DENTON: It would be my intention to make sure we have the applicant's identification in the application of where he purports to comply with each applicable regulation and each general design criteria, and we will make a special effort on these to get that area well documented. So, our rewiew is focused on a one to one. I am trying to do that now for the OL applications, where we have not yet completed our SER.

CHAIRMAN AHEARNE: Any other questions?

(No response.)

CHAIRMAN AHEARNE: Are we willing to vote out -- putting this out for comment?

COMMISSIONER GILINSKY: I think so.

COMMISSIONER BRADFORD: Yes.

CHAIRMAN AHEARNE: Joe?

COMMISSIONER HENDRIE: I don't object to it. It seems to me that 90 days is a long time.

CHAIRMAN AHEARNE: I think you have 45.

COMMISSIONER HENDRIE: Well --

MR. PURPLE: We have a 45-day notice in here. I was saying, you have to figure how to handle the fact that the action plan is being commented on in a 90-day period, and this refers -- this draws directly from the action plan, and it would probably be at least a week from now before we have the NUREG ready to go into the Federal Register. It is going to come close to 90 days, even moving as rapidly as we can.

CHAIRMAN AHEARNE: It is hard to see how 45 days -- how we could have anything shorter than that.

COMMISSIONER HENDRIE: Well, it means that what we say is that -- you know, it is going to be two weeks to get it into the Federal Register, and you want 45 days, and another 45 days plus a little bit to round up the comments and come back, and that means in four months, while we can sit down again and think about whether we are ever going to do anything about these pending construction permit applications, and that seems to me a long time.

I wonder if there is not some way to make some

modest progress, at least with those CP's, where the people who are applying for them are still -- still would like a decision to make more motion at a more rapid pace.

As far as I know on these cases there probably is not a great deal to be done, and what is recommended in this paper is a way of treating things. Again, it does not require a great deal of work, it does not seem to me. The guy who wants the CP if he wants it is going to have to make some commitments about how he deals with areas that may -- in which there may be requirements flowing from the rulemakings and so on, and he makes those commitments, and so on.

Why, it does not look to me like that in itself is going to be a great long process. If he decides not to, why, okay, he goes away and pulls the application. If he decides to do it, why, it ought to be matter, I would think, of relatively short time, a few weeks to gather it up. He is not going to be able to detail things, I don't think.

COMMISSIONER GILINSKY: Why do you say it is going to be another 45 days until the end of the comments?

COMMISSIONER HENDRIE: Well, you --

COMMISSIONER BRADFORD: The sense of the nature of the thing --

COMMISSIONER HENDRIE: The 45-day comment won't start until it is published, two weeks to get it published,

a 45-day comment period. The comment period ends. Now, you sit down to look at the comments. My guess is, it would be another 45-plus days before the staff can be back in here saying, well, now we have the comments, and here is our adjusted construction permit proposition, and the Commission will think about scheduling it, and a few weeks down the line or a month, we will eventually gather on it.

COMMISSIONER GILINSKY: The comments, I assume, will be presumably from those who are applying.

COMMISSIONER HENDRIE: I doubt it very much.

COMMISSIONER GILINSKY: They are going to be from others?

COMMISSIONER HENDRIE: Yes.

COMMISSIONER GILINSKY: After all, even the proposed rule, he can get some reasonable guidance about what he is doing.

COMMISSIONER HENDRIE: It is not quite a rule we are looking at here.

COMMISSIONER GILINSKY: Policy statement, sorry.

COMMISSIONER HENDRIE: The proposition here in going out for comment is that people complained that we did not do that on the basic action plan, and the OL list. The proposition here is, let's go out for comment in this case. What I am saying is, I think that is a good idea, and that is all well and good, but I wonder if we --if there is not

some way to do something other than to have absolutely no motion on these few cases for what seems to me to be four months following which the staff can prepare some things.

The applicant can file a few things. The staff can prpeare its case and go back to the hearings in each case.

CHAIRMAN AHEARNE: Are any of these six in hearings already?

MR. DENTON: I think all six are.

CHAIRMAN AHEARNE: All six are.

MR. DENTON: Is that correct?

MR. SCINTO: Yes.

MR. DENTON: So that means the staff SER's and environmental statements are all issued.

COMMISSIONER HENDRIE: Most of them are well along in the hearing stage.

CHAIRMAN AHEARNE: What you are really talking about is the final -- sort of the TMI related issues before the hearing boards.

MR. DENTON: Yes. If the Commission wanted to separate out some segment of these issues and decide today that they were -- would be carried out, the staff could begin to work on those and get back to the boards on that.

COMMISSIONER GILINSKY: What -- what would you propose, Joe?

MR. DENTON: I am trying to respond to the Commissioner --

COMMISSIONER GILINSKY: I understand.

MR. DENTON: I have not figured out how to parce out such an approach.

MR. BICKWIT: Have you gone as far as you can go with the issues not covered by the action plan?

COMMISSIONER GILINSKY: I wonder whether in fact there is all that much time lost and that once this goes out an applicant has some notion of what it is he ought to be putting together. That takes some time.

CHAIRMAN AHEARNE: That seems to be realistic. Commissioner Gilinsky is pointing out that clearly when you put that out, just given the past history, the applicant who is interested ought to reasonably conclude this now is essentially the list of the things he is going to have to do. I think you can probably expect that there is not going to be much of a weakening of those. There may be a strengthening, but as far as backing off very much, he would not have that much confidence in that happening. The work he would have to do in trying to meet those is going to take some time. It is not clear that that will necessarily be therefore wasted time.

MR. DENTON: It is certainly conceivable that an applicant could at his own risk begin to comply with these

by going to the appropriate commitments and detail, and the staff could review that along internally without coming to any judgments on it. In that sense, stay moving. So that when a final position was adopted, we would know where the plant stood in that regard.

CHAIRMAN AHEARNE: Did you have another specific question, Joe?

COMMISSIONER HENDRIE: No.

CHAIRMAN AHEARNE: Joe, you have raised a point that these are now in front of the boards. Given the recent difficulties on the instructions to operating license boards, it would appear that we ought to at least have identified the issue of what instructions to give to construction permit boards with respect to -- how ought the construction permit boards treat these new issues.

I had asked Len to look at possible language that we might use.

MR. BICKWIT: Would you pass that around? What I would suggest is language, just a sentence, which would be the second to the last sentence of the note as it would simply say, comments are also requested regarding the extent to which the judgments reached by the Commission on these matters should form the basis for instructions to licensing and appeal boards and construction permit and manufacturing license proceedings.

COMMISSIONER BRADFORD: I guess if there is interest in the Commission in following the operating license policy statement -- precluding or limiting litigation of these issues before licensing boards I think that that sentence ought to be preceded by one that says that. That is, the Commission is considering the following, and then just go on and say, comments are requested on this or other possible methods.

The reason I say that is, this does not quite put a potential commenter on notice that this may be his or her last chance to comment on these issues.

(General laughter.)

COMMISSIONER BRADFORD: And if the Commission is in fact to take that step, it seems to me to be important to be explicit about it in the notice when it goes out for comment.

CHAIRMAN AHEARNE: Don't be cynical, Peter.

COMMISSIONER BRADFORD: I was being absolutely serious.

(General laughter.)

COMMISSIONER HENDRIE: I did not think you were being cynical.

COMMISSIONER BRADFORD: Pessimistic, perhaps, but not cynical.

(General laughter.)

CHAIRMAN AHEARNE: I had asked Len to address -- it would appear to me we ought to ask for comment on how ought we treat these issues, and that is what that sentence does, and it was not with any pre-fixed judgment, as far as any possible -- now, I would guess that there are at least a few people who have seen that other applicant issue and will probably address that kind of comment, but I did not have in mind going down that route.

As a matter of fact, since we in the other case, we had really, I felt, devoted so much more time in working through very -- in great detail what to do about operating reactors or near operating reactors. It is a different background. So I did not come at this one with the same view.

MR. BICKWIT: You could attach some press clippings.

(General laughter.)

CHAIRMAN AHEARNE: Seriously, I felt when I read the Federal Register notice -- I felt that any commenter, having been familiar with the operating license issue, that would be an open question, so I thought we ought to at least address it, and rather than four months from now having -- three months, whenever that comes up, having them come back and say, well, gee, we really ought to address what to do about instructions to the boards, and too bad we did not ask

for comments on it.

COMMISSIONER BRADFORD: I agree with that, and certainly USC or anybody who has been directly through the comment on the operating license policy statement reading this --

CHAIRMAN AHEARNE: I really went at it more from the standpoint -- in fact, completely from the standpoint that we ought to at least point out that there would be some -- there is the possibility of giving some instructions to the boards on it when we ask for the comments.

COMMISSIONER BRADFORD: Okay. Let me then ask the same question sort of backwards. Len, if at the end of the comment period the Commission decided on the basis of having solicited comments to preclude litigation of these issues, would you feel that legally this comment process with just this notification in it was an adequate basis for doing that? By preclude, I mean, completely preclude. No possibility of raising it to the Commission at the end in effect treating this as a rule.

MR. BICKWIT: I do not think if you are going to treat this as a rule, then obviously you have to -- you have to provide some notice, but that is not what the previous policy statement did, and adhering to the notion that the previous policy statement was a legal action of the Commission, I do not believe this comment period is even

required.

So, as a legal matter, it follows that the extent of the notice is irrelevant, as a matter of comity and --

CHAIRMAN AHEARNE: That is i-t-y, c-o-m-i-t-y --

(General laughter.)

CHAIRMAN AHEARNE: A common phrase in Congress.

MR. BICKWIT: If your question is, could the notice be defined more sharply, I think the answer is, yes.

COMMISSIONER BRADFORD: I am really not trying to be cute about it, or drag up the old operating license policy statement. I do want to be clear, though, that -- my own assumption would be that this could not be the basis for going, what I would say is a step further than the Commission position in the operating license cases, as I understand it, and being used as a complete bar to raising these issues in subsequent litigation. That is, no possibility of raising them even to the Commission.

MR. BICKWIT: If it is meant to bind all potential litigants so that they have no opportunity to raise the policy of the Commission before the Commission or boards in an adjudication, then this notice I do not think would be sufficient.

COMMISSIONER BRADFORD: That is all I was after.

MR. BICKWIT: But that was -- that was never the intention of the Commission, as I understood it, in putting

out the policy statement.

MR. SCINTO: I wanted to comment that the notice that was in the paper, that was given to the Commission, was not intended to address that issue. It was intended to provide a notice of the substantive issues that the staff has in mind. It is not addressing the procedural matter which the Commission had considered at some length in connection with OL's.

CHAIRMAN AHEARNE: Right, but I thought it was necessary.

COMMISSIONER HENDRIE: When is the 90-day period up on the other one?

MR. PURPLE: It is my understanding it went to the Federal Register, and I don't know if that means it was published. I think it went to the Federal Register about two days ago on the action plan, so I guess it is a week or two from now that it is actually published. I really don't know for sure. It is roughly 90 days from now.

COMMISSIONER HENDRIE: 8/1 -- 11/1.

CHAIRMAN AHEARNE: It took a long time to get out.

COMMISSIONER HENDRIE: It took a long time to get out.

COMMISSIONER HENDRIE: 12/1 -- I think it is a grand process, but I would hate to think that we would have to sit here on the 1st of August and contemplate that I

think there are probably three of those CP cases that are still possible, viable projects, and say that it will be Christmas time before we know what to do or can begin to gather up our resources and move back into hearings.

The staff review, whatever.

CHAIRMAN AHEARNE: Do you have an alternative? The difficulty I have in recognizing the problems you have, I still think that Vic is right, that these applicants are going to have a reasonable amount of work to do -- to go through to provide the information review that is going to be required on a number of these items. I mean, look at Enclosure 2. It may just be a generation of paper effort they are going to have to go through. Certainly you can say, well, there is no reason for them to get started on that path until this whole process is completed.

I think they could get started, and it would appear to me that would be the only sensible thing, but I do not really see a good alternative.

MR. GALLO: Mr. Chairman, is it possible to be recognized?

CHAIRMAN AHEARNE: In general, we do not recognize people from the audience. I am sorry.

MR. GALLO: Does that mean I should sit down?

CHAIRMAN AHEARNE: You may remain standing.

(General laughter.)

MR. GALLO: Thank you.

COMMISSIONER HENDRIE: Is it -- we are going to wait for comments on the action plan. Those are November 1st. A month and a half to gather it up and --

CHAIRMAN AHEARNE: I guess to some extent that was really -- those were focused specifically on the operating license hearings, and operating license requirements. These are focused on the construction permits. It is not obvious to me that they are not separable to some extent. I do not see why if we put in a 45-day comment they cannot begin reviewing those, but realistically these are either substandard issues or they are not. If they are not substandard issues, then the comment should not be that hard. Raising it should not be very difficult.

Remaining actions by the staff and the board should not be very difficult. If they are substantive issues, the licensee is going to have to do some work to respond to them, in which case that time period is not that settled.

COMMISSIONER GILINSKY: Harold, what is your sense of how much work is involved here? Suppose this was the final statement that the applicant was to comply with. How much work is involved and how long would it take?

MR. DENTON: A lot of them are just commitments, some of the action plan items, because theydo not have to --

COMMISSIONER GILINSKY: Presumably they have to think of these as commitments.

MR. DENTON: They have to make some commitment in a form that would show --

COMMISSIONER GILINSKY: They may want to modify it in one form or another.

MR. DENTON: Others are more substantive, such as the probabilistic assessment of certain systems will require fault trees and event trees and data gathering and calculations.

COMMISSIONER GILINSKY: Presumably not all of them would have the people right at hand to do that.

MR. DENTON: We have been talking about this issue for some time in various forms. It has been a part of our thinking for some time. I guess it would be comparable to the short term lessons learned effort.

MR. PURPLE: Perhaps a little bigger, because there is some added items that were not in the short-term lessons learned.

COMMISSIONER GILINSKY: Roughly, you would expect to get back a completed package from them in how long a time frame? Let me ask it a different way. Suppose these were the final specifications for what it was they had to do? How long do you think it would take them to do it?

MR. DENTON: I would guess three months or so. We

have been talking about these various -- the most difficult issue is the degraded rulemaking, trying to analyze the existing design so as not to foreclose, but I would guess a three-month effort.

MR. PURPLE: At least. I would say three to six.

COMMISSIONER GILINSKY: It does not sound to me like there is a lot of lost time here. I mean, there would be if there were some major modification along the way of what it was we were asking them to do, but if one assumes that there will not be a major departure from this list, a major revision of it, then it does not sound as if there would be.

MR. DENTON: You could assure that. You could make it effective immediately and have it required from the start.

CHAIRMAN AHEARNE: I think this would lead them to start. I don't know. The health and safety aspects --

COMMISSIONER HENDRIE: I will vote with some reluctance because I would --

COMMISSIONER GILINSKY: I am not saying that to pressure you. I was just trying to understand what your objections are.

COMMISSIONER HENDRIE: It is what seems to be a very long time before things can move forward. God knows the extent to which applicants will be ready to move

forward, but at least to the extent that anyone listens and pays any attention to what is said here today at this table in the course of approving this proposition for comment, let me note that Commissioners up and down the table have said knowledgeable applicants will get moving on these things. That is, anybody that wants a construction permit, the various Commissioners have said can reasonably get working with the engineers to prepare the sort of materials that would be necessary on the assumption that the items in this for comment document will be at least included among those that will be in the final directions, if not in fact the inclusive list.

CHAIRMAN AHEARNE: Len?

MR. BICKWIT: Bob and I have had a discussion about a minor point, but I just wanted to put it on the record. We have agreement on it. As we read Option C as it related to degraded core rulemaking, it was consistent with the regulation which requires that the proposed design must be such that the Commission can find with reasonable assurance that the plant, if built according to that design, can be constructed and operated without undue risk to public health and safety. He assured me that that was the way it was.

MR. SCINTO: Or, I assume, the other portions of 5035. They would conform to the other portions of 5035.

CHAIRMAN AHEARNE: We are not violating our other regulations. Can I have a vote to issue this as modified? Aye.

COMMISSIONER BRADFORD: Aye.

COMMISSIONER GILINSKY: Aye.

COMMISSIONER HENDRIE: Aye.

CHAIRMAN AHEARNE: Very good. Thank you.

(Whereupon, at 3:03 p.m., the meeting was adjourned.)

NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

Commission

in the matter of: Briefing on Near Term Requirements for Construction Premits for Power Reactors

Date of Proceeding: August 1, L980

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.

David S. Parker

Official Reporter (Typed)

(SIGNATURE OF REPORTER)

NRC REQUIREMENTS FOR LICENSING

- OPERATING REACTORS
  - SHORT TERM LESSONS LEARNED, INCL. B&O
  - SELECTED ITEMS FROM ACTION PLAN
  - OPERATOR QUALIFICATION
  - EMERGENCY PREPAREDNESS
- OPERATING LICENSES APPLICATIONS
  - NUREG-0694 (INCLUDES OR ITEMS)
  - PROPOSED DATED REQUIREMENTS
- CONSTRUCTION PERMIT APPLICATIONS
  - NOT YET ADDRESSED BY COMMISSION
  - REVIEWS SUSPENDED SINCE MARCH 1979

OPTIONS FOR CP REQUIREMENTS

A. Continue with Pre-TMI Licensing Envelope

B. Pre-TMI licensing envelope, Modified to Include Items Now Required for NTOLs.

C. Pre-Tmi Licensing Envelope, modified to Include Items Now Required for NTOLs <u>plus</u> Selected Special Considerations.

D. Indefinitely Post-Pone Consideration of Construction Permit Applications.

PROPOSED APPROACH

- Define Requirements
  - Review Action Plan - Define Items Applicable to CPs
  - Define Required Information/Committments for CP-Issue NUREG
  - Establish Special Requirements:
    - - Siting
    - - Degraded Core Rulemaking
    - - Reliability Analyses
    - - Emergency Preparedness
- Obtain Public Comments on Proposed Requirements
- Considering Public Comments and ACRS Comments (from May 6, 1980 letter), Develop Proposed Approach/Requirements
- Commission Issue Policy Statement

"SPECIAL" REQUIREMENTS

- o SITING
  - Per Secy 80-153, Compare CP Sites with NUREG-0625

- o DEGRADED CORE RULEMAKING
  - Define Conformance to Interim Rule
  - To Extent Practicable, Provide Assurance That Options for Meeting Final Requirements from Rulemaking are not Foreclosed (e.g., FVCS, Core Retainer, H_2)
  - Submit Evaluation of Additional Preventive/Mitigative Features that have Potential for Significant Risk Reduction

- o RELIABILITY ANALYSIS
  - Perform Reliability Analyses for Selected Systems
  - Use Event/Fault Tree Techniques to Identify Weaknesses
  - Propose Design Modifications
  - Special Consideration of: Human Errors; Common Causes; Single Point Vulnerabilities; and T&M

- o EMERGENCY PREPAREDNESS
  - Program to Comply with New Emergency Preparedness Rule

July 28, 1980 SECY-80-348

COMMISSIONER ACTION

For: ~~The Commission~~

Thru: William J. Dircks, Acting
Executive Director for Operations

From: Harold R. Denton, Director
Office of Nuclear Reactor Regulation

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

Purpose: To obtain Commission approval of a policy for proceeding with pending construction permit (CP) and manufacturing license (ML) applications.

Background: The TMI-2 Action Plan, NUREG-0660, does not specifically address requirements for CP and ML applications. There are currently pending six CP applications for eleven plants and one ML application for eight floating nuclear plants. Staff review of these applications has been suspended since the TMI-2 accident pending the formulation of a policy to appropriately reflect the lessons learned from the accident.

The applicants for the six pending CP applications have formed a group to interact with the staff in the development of the requirements. A meeting was held with an ACRS subcommittee and with the full committee to discuss the program and the preliminary findings. An ACRS letter dated May 6, 1980, from Chairman Plesset to Chairman Ahearne is enclosed (Enclosure 1).

Discussion: Options Considered

We considered three options:

1. Resume licensing using the pre-TMI CP requirements augmented by the applicable requirements identified in the Commission's June 16, 1980 Statement of Policy regarding operating licenses. In effect, this treats the pending CP and ML applications as though they were the last of the present generation of nuclear power plants.

Contact:
R. A. Purple , NRR:DL
X27672

SECY NOTE: This paper is scheduled for discussion on August 1, 1980.

2. Take no further action on the pending applications until the rulemaking actions described in the Action Plan have been completed. This would, in effect, treat the pending applications as the first of a new generation of nuclear power plants.

3. Resume licensing using the pre-TMI CP requirements augmented by the applicable requirements identified in the Commission's June 16, 1980 Statement of Policy regarding operating licenses and require certain additional measures or commitments in selected areas (e.g., those that will be the subject of rulemaking).

Option 1 would minimize the review and construction impact, thereby minimizing delays in reaching regulatory decisions for the planned facilities. The principal disadvantage of Option 1 is that it fails to take advantage of the fact that, since construction has not started, it would be relatively easy to provide design flexibility to implement potential significant safety improvements.

Option 2 would maximize the safety improvements but would result in extensive delays and possible cancellations. We believe that the cost of such delays are not justified provided that design flexibility can be demonstrated.

Option 3 is believed to be a suitable compromise between the extremes of Options 1 and 2. This option will ensure that approved action items in the Action Plan are applied to the new CPs and will provide for early consideration of added safety measures that can be incorporated into the design without the need for inordinately costly backfit. By establishing a clear statement of policy with respect to the issues to be determined by rulemaking, a degree of stability is introduced into the CP review process thereby allowing prospective applicants to make better-informed decisions.

The Proposed Approach

We have carefully examined the Action Plan to determine the extent to which it should be applied to the pending CP and ML applications. We have identified four areas that we believe merit special attention and the development of a clear statement of requirements. These areas, which correspond to items 1, 2, 3 and 6 of the ACRS letter (Enclosure 1), are:

1. Siting

   The Commission has already established a transition policy for CP applicants. This policy was established by Commission consideration of SECY 80-153 and recorded in a memorandum dated June 30, 1980, from S. J. Chilk to W. J. Dircks. CP applicants, accordingly, will be asked to compare their sites with the recommendations of NUREG-0625, as modified by OPE and ACRS comments. At such time as the proposed rule is issued for comment (scheduled for October 1980), CP applicants will be required to assess their sites against the criteria contained in the proposed rule.

2. Degraded Core Rulemaking

CP and ML applicant's should describe the degree to which their designs conform to the proposed interim rule. Applicants should also provide reasonable assurance, to the extent practicable and taking into account the present state-of-the-art of this technology, that issuance of CPs or MLs will not foreclose or preclude the modification of the facilities to accommodate potential requirements that may result from the rulemaking proceedings. These potential requirements include such features as filtered vented containment, molten core retention, and hydrogen control systems. Special attention should be given to those facility designs with small containment volumes, i.e., ice condenser and Mark III containment designs.

Prior to issuance of a CP or ML, applicants will also be required to submit their evaluation of the additional features, both preventive and mitigative, they propose to include at their facilities that have the potential for significant risk reduction.

3. Reliability Engineering

CP and ML applicants should perform simplified system reliability analysis for the following systems: subcriticality systems, emergency feedwater systems (PWRs), reactor core isolation cooling system, (BWRs), ECCS injection and recirculation systems, shutdown cooling system, containment cooling and spray systems, safety features actuation systems, and auxiliary systems upon which these depend (alternating and direct current, compressed air, essential service water or cooling systems, and heating, ventilating and air conditioning systems). These analyses should use event-tree and fault-tree logic techniques to identify design weaknesses and possible system modifications that would be made to improve the capability and reliability of the above systems under various transient and LOCA events. Particular emphasis will be given to determining potential failures that could result from human errors, common causes, single point vulnerabilities, and test and maintenance outages.

CP and ML applicants should provide sufficient information to describe the nature of the studies, how they are to be conducted, the completion dates, and the program to assure that the results of such studies are factored into the final designs.

4. Emergency Preparedness

CP applicants shall submit, prior to the issuance of construction permits, a discussion of their preliminary plan for coping with emergencies addressing the amended rule (Appendix E to 10 CFR Part 50) as it applies to construction permit applications. Sufficient detail shall be presented to provide reasonable assurance that the requirements will be implemented properly.

The remaining Action Plan items that are determined to be applicable to the pending CP and ML applications, including Items 4 and 5 identified in the ACRS letter (Enclosure 1), have been identified (Enclosures 2 and 3). We plan to issue a NUREG document that identifies the remaining Action Plan items and defines the required commitment or design information necessary to permit completion of the safety reviews. As Decision Group C items become approved by the Commission, they would be added as requirements for CP and ML applicants.

Implementation

We recommend that the approach described in this paper be noticed in the Federal Register for public comment. The proposed Federal Register notice is included as Enclosure 4.

Upon receipt of public comments and further review by the ACRS, we would plan to return to the Commission for approval to resume review of CP and ML applications.

Recommendation: That the Commission approve the staff proposal to obtain public comment on the set of requirements described in this paper.

Coordination: The Executive Legal Director has no legal objection to the recommendations in this paper.

Harold R. Denton

Harold R. Denton, Director 7/29/80
Office of Nuclear Reactor Regulation

Enclosures:
1. Memorandum, Chairman Plesset to Chairman Ahearne, dated May 6, 1980
2. Action Plan Items Applicable to Pending Construction Permit Applications
3. Action Plan Items Applicable to Pending Manufacturing License Application
4. Proposed Federal Register Notice

DISTRIBUTION
Commissioners
Commission Staff Offices
Exec Dir for Operations
ACRS
Secretariat

Commissioners' comments should be provided directly to the Office of the Secretary by c.o.b. Tuesday, August 12, 1980.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT August 5, 1980, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

ENCLOSURE 1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20555

ENCLOSURE 1

May 6, 1980

Honorable John F. Ahearne
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: NEAR-TERM CONSTRUCTION PERMIT APPLICATIONS

Dear Dr. Ahearne:

During its 241st meeting, May 1-3, 1980, the ACRS reviewed the status of applications for near-term construction permits (NTCPs). In its review the Committee had the benefit of discussions with the NRC Staff and with representatives of the applicants for the NTCPs. A subcommittee meeting on this subject was held on April 9, 1980.

The six NTCP applicants and the reactor types involved are as follows:

Black Fox Station, Units 1 and 2, Public Service Company of Oklahoma, General Electric BWR/6, Mark III pressure suppression containment

Skagit Nuclear Power Project, Units 1 and 2, Puget Sound Power & Light Company, General Electric BWR/6, Mark III pressure suppression containment

Pilgrim Station, Unit 2, Boston Edison Company, Combustion Engineering custom NSSS, large dry containment

Perkins Nuclear Station, Units 1, 2 and 3, Duke Power Company, Combustion Engineering CESSAR System 80 NSSS, large dry containment

Allens Creek Nuclear Generating Station, Houston Lighting & Power Company, General Electric BWR/6, Mark III pressure suppression containment

Pebble Springs Nuclear Plant, Units 1 and 2, Portland General Electric Company, Babcock and Wilcox custom NSSS, large dry containment

The NRC Staff has approached this matter primarily by examining the Action Plan and judging the applicability and scheduling of each item to an NTCP. This procedure has resulted in placing many important items in a category wherein the NRC has yet to develop criteria applicable to construction permit applicants. Action Plan item II.A on siting introduces questions whose resolution must be achieved prior to issuance of a construction permit.

Item II.B on degraded or melted cores bears directly on containment design, as well as other safety features. Item II.C on reliability engineering and risk assessment could bear significantly on the design requirements for many important plant systems. There are many other items in the Action Plan and in the ACRS report of April 17, 1980 which also might impact directly on important design aspects of these plants.

Mr. Harold Denton advised the Committee that he envisaged permitting construction to proceed if there are no obvious site-related questions in terms of the Report of the Siting Policy Task Force (NUREG-0625) and if the containment design pressure were such as to withstand hydrogen combustion, on the assumption that other design aspects could be changed later if so required.

The utility representatives advised the ACRS that, in their opinion, there was a need for the resolution of several policy questions which relate to how and whether construction permit applications will be processed in the near term. The utilities identified the following six policy issues as being in most urgent need of resolution:

1. Siting
2. Emergency planning
3. Degraded core conditions
4. Control room design
5. Management for design and construction
6. Reliability and risk assessment

The utility representatives recommended that a concerted effort be undertaken to develop an acceptable interim approach to resolution by the Commission of such issues in the next few months. The ACRS supports this recommendation and urges that appropriate Staff resources be made available for this purpose. An ACRS Subcommittee plans to work actively with the Staff on the topic with the anticipation that the full Committee would review the NTCP matter within a few months.

Sincerely,

Milton S. Plesset

Milton S. Plesset
Chairman

References:

1. Memorandum from D. F. Ross, NRC, to R. F. Fraley, ACRS, Subject: Transmittal of NTCP Requirements List, dated April 22, 1980.
2. Memorandum from William F. Kane, NRC, to Addressees, Subject: Request for Review of Proposed TMI-2-Related Requirements for NTCP Applicants, dated April 4, 1980.
3. U. S. Nuclear Regulatory Commission, "NRC Action Plans Developed as a Result of the TMI-2 Accident," USNRC Report NUREG-0660 Draft 3, dated March 5, 1980.
4. U. S. Nuclear Regulatory Commission, "Report of the Siting Policy Task Force," USNRC Report NUREG-0625, dated August, 1979.

ENCLOSURE 2

ENCLOSURE 2

ACTION PLAN ITEMS APPLICABLE TO

PENDING CONSTRUCTION PERMIT APPLICATIONS

I.A.1.1	-	Shift Technical Advisor
I.A.1.2	-	Shift Supervisor Administrative Duties
I.A.1.3	-	Shift Manning
I.A.2.5	-	Plant Drills
I.A.3.1	-	Revise Scope and Criteria for Licensing Exams
I.A.4.2	-	Long-Term Training Simulator Upgrade
I.B.1.1	-	Organization and Management Long-Term Improvements
I.C.1	-	Short-Term Training Simulator Upgrade
I.C.2	-	Shift and Relief Turnover Procedures
I.C.3	-	Shift Supervisor Responsibilities
I.C.4	-	Control Room Access
I.C.5	-	Procedures for Feedback of Operating Experience
I.C.6	-	Procedures for Verification of Correct Performance of Operating Activities
I.C.7	-	NSSS Vendor Review of Procedures
I.C.9	-	Long-Term Program Plan for Upgrading Procedures
I.D.1	-	Control Room Design Reviews
I.D.2	-	Plant Safety Parameter Display Console
I.D.3	-	Safety System Status Monitoring
I.D.4	-	Control Room Design Standard
I.E.4	-	Coordination of Licensee, Industry, and Regulatory programs
I.F.1	-	Expand QA List
I.F.2	-	Develop More Detailed Criteria
II.A.2	-	Site Evaluation of Existing Facilities
II.B.1	-	Reactor Coolant System Vents
II.B.2	-	Plant Shielding to Provide Access to Vital Areas and Protect Safety Equipment From Post-Accident Operation
II.B.3	-	Post Accident Sampling
II.B.4	-	Training for Mitigating Core Damage
II.B.8	-	Rulemaking Proceeding
II.C.4	-	Reliability Engineering
II.D.1	-	Testing Requirements
II.D.2	-	Research on Relief and Safety Valve Test Requirements
II.D.3	-	Post Accident Sampling
II.E.1.1	-	Auxiliary Feedwater System Evaluation
II.E.1.2	-	Auxiliary Feedwater System Automatic Initiation and Flow Indication

II.E.2.1	-	Reliance on ECCS
II.E.2.3	-	Uncertainties in Performance Predictions
II.E.3.1	-	Reliability of Power Supplies for Natural Circulation
II.E.4.1	-	Dedicated Penetrations
II.E.4.2	-	Isolation Dependability
II.E.4.3	-	Integrity Check
II.E.4.4	-	Purging
II.E.5.1	-	Design Evaluation
II.E.5.2	-	B&W Reactor Transient Response Task Force
II.F.1	-	Additional Accident Monitoring Instrumentation
II.F.2	-	Identification and Recovery from Conditions Leading to Inadequate Core Cooling
II.F.3	-	Instrumentation for Monitoring Accident Conditions (Reg. Guide 1.97)
II.G.1	-	Power Supplies for Pressurizer Relief Valves, Block Valves, and Level Indicators
II.J.3.1	-	Organization and Staffing to Oversee Design and Construction
II.K.1.20	-	Provide Procedures and Training to Operators for Prompt Manual Reactor Trip for LOFW, TT, MSIV Closure, LOOP, LOSG Level, and Low Pressurizer Level
II.K.1.21	-	Provide Automatic Safety-Grade Anticipatory Reactor Trip for LOFW, TT, or Significant Decrease in SG Level
II.K.1.22	-	Describe Automatic and Manual Actions for Proper Functioning of Auxiliary Heat Removal Systems when FW System is not Operable
II.K.1.23	-	Describe Uses and Types of RV Level Indication for Automatic and Manaul Initiation of Safety Systems. Also Describe Alternative Instrumentation.
II.K.2.2	-	Procedures and Training to Initiate and Control AFW System Independent of Integrated Control System
II.K.2.9	-	Analysis and Upgrading of Integrated Control System
II.K.2.10	-	Hard-Wired Safety-Grade Anticipatory Reactor Trips
II.K.2.13	-	Thermal-Mechanical Report. Effect of HPI on Vessel Integrity for Small-Break LOCA with no AFW
II.K.2.14	-	Demonstrate that Predicted Lift Frequency of PORVs and SVs is Acceptable
II.K.2.15	-	Analysis of Effects of Slug Flow on Once-Through Steam Generator Tubes After Primary System Voiding

II.K.2.16	-	Impact of RCP Seal Damage Following Small-Break LOCA with Loss of Offsite Power
II.K.3.2	-	Report on Overall Safety Effect of PORV Isolation System
II.K.3.3	-	Report Safety and Relief Valve Failures Promptly and Challenges Annually
II.K.3.5	-	Continue to Study Need for Trip of RCPs. Modify Procedures or Designs as Appropriate
II.K.3.11	-	Control Use of PORV Supplied by Control Components, Inc. Until Further Review is Completed
II.K.3.13	-	Separation of HPCI and RCIC System Initiation Levels. Analysis and Implementation
II.K.3.15	-	Modify Break Detection Logic to Prevent Spurious Isolation of HPIC and RCIC Systems
II.K.3.16	-	Reduction of Challenges and Failures of Relief Valves. Feasibility Study and System Modification.
II.K.3.18	-	Modification of ADS Logic. Feasibility study and Modifiaction for Increased Diversity for Some Event Sequences
II.K.3.21	--	Restart of Core Spray and LPCI Systems on Low Level. Design and Modification.
II.K.3.23	-	Central Water Level Recording
II.K.3.24	-	Confirm Adequacy of Space Cooling for HPCI and RCIC Systems
II.K.3.25	-	Effect of Loss of AC Power on Pump Seals
II.K.3.27	-	Provide Common Reference Level for Vessel Level Instrumentation
II.K.3.28	-	Study and Verify Qualification of Accumulators on ADS Valves
II.K.3.30	-	Revised Small-Break LOCA Methods to Show Compliance with 10 CFR 50.46
II.K.3.31	-	Plant Specific Calculations to Show Compliance with 10 CFR 50.46
II.K.3.44	-	Evaluation of Anticipated Transients with Single Failure to Verify no Significant Fuel Failure
II.K.3.45	-	Evaluate Depressurization with Other Than Full ADS
II.K.3.46	-	Response to List of Concerns From ACRS Consultant
III.A.1.1	-	Upgrade Emergency Preparedness
III.A.1.2	-	Ungrade License Emergency Support Facilities
III.A.1.3	-	Maintain Supplies of Thyroid Blocking Agent (Potassium Iodide)
III.A.2.1	-	Amend 10 CFR Part 50 and 10 CFR Part 50, Appendix E
III.A.2.2	-	Development of Guidance and Criteria
III.A.3.3	-	Communications
III.A.3.5	-	Training, Drills, and Tests

III.D.1.1	-	Primary Coolant Sources Outside the Containment Structure
III.D.1.2	-	Radioactive Gas Management
III.D.1.3	-	Ventilation System and Radioiodine Adsorber Criteria
III.D.2.3	-	Liquid Pathway Radiological Control
III.D.2.4	-	Offsite Dose Measurements
III.D.2.5	-	Offsite Dose Calculation Manual
III.D.3.1	-	Radiation Protection Plans
III.D.3.3	-	In-Plant Radiation Monitoring
III.D.3.4	-	Control Room Habitability

ENCLOSURE 3

ENCLOSURE 3

ACTION PLAN ITEMS APPLICABLE TO

PENDING MANUFACTURING LICENSE APPLICATION

I.B.1.1	-	Organization and Management Long-Term Improvements
I.C.1	-	Short-Term Accident Analysis and Procedure Revision
I.C.5	-	Procedures for Feedback of Operating Experience
I.D.1	-	Control Room Design Reviews
I.D.2	-	Plant Safety Parameter Display Console
I.D.3	-	Safety System Status Monitoring
I.D.4	-	Control Room Design Standard
I.E.4	-	Coordination of Licensee, Industry and Regulatory Programs
I.F.1	-	Expand QA List
I.F.2	-	Develop More Detailed Criteria
II.B.1	-	Reactor Coolant System Vents
II.B.2	-	Plant Shielding to Provide Access to Vital Areas and Protect Safety Equipment From Post-Accident Operation
II.B.3	-	Post Accident Sampling
II.B.8	-	Rulemaking Proceeding on Degraded Core Accidents
II.C.4	-	Reliability Engineering
II.D.1	-	Testing Requirements
II.D.2	-	Research on Relief and Safety Valave Test Requirements
II.D.3	-	Relief and Safety Valve Position Indication
II.E.1.1	-	Auxiliary Feedwater System Evaluation
II.E.1.2	-	Auxiliary Feedwater System Automatic Initiation and Flow Indication
II.E.2.1	-	Reliance on ECCS
II.E.2.3		Uncertainties in Performance Predictions
II.E.3.1	-	Reliability of Power Supplies for Natural Circulation
II.E.4.1	-	Dedicated Penetrations
II.E.4.2	-	Isolation Dependability
II.E.4.4	-	Purging
II.F.1	-	Additional Accident Monitoring Instrumentation
II.F.2	-	Identification and Recovery from Conditions Leading to Inadequate Core Cooling
II.F.3	-	Instrumentation for Monitoring Accident Conditions (Reg. Guide 1.97)
II.G.1	-	Power Supplies for Pressurizer Relief Valves, Block Valves, and Level Indicators
II.J.3.1	-	Organization and Staffing to Oversee Design and Contruction
II.K.3.2		Report on Overall Safety Effect of PORV Isolation System

II.K.3.3	-	Report Safety and Relief Valves Failures Promptly and Challenges Annually
II.K.3.5	-	Continue to Study Need for Trip of RCPs. Modify Procedures or Designs as Appropriate
II.K.3.9	-	Proportional Integral Derivative Controller Modification
II.K.3.10	-	Anticipatory Trip Modification Proposed by some Licensees to Confine Range of Use to High Power Levels
II.K.3.11	-	Control Use of PORV Supplied by Control Components, Inc. Until Further Review is Completed
II.K.3.12	-	Confirm Existence of Anticipatory Trip Upon Turbine Trip
II.K.3.30	-	Revised Small-Break LOCA Methods to Show Compliance with 10 CFR 50, Appendix K
II.K.3.31	-	Plant Specific Calculation to Show Compliance with 10 CFR 50.46
III.A.1.2	-	Upgrade Licensee Emergency Support Facilities
III.A.2.2	-	Development of Guidance and Criteria
III.D.1.1	-	Primary Coolant Sources Outsite the Containment Structure
III.D.1.2	-	Radioactive Gas Management
III.D.1.3	-	Ventilation System and Radioiodine Adsorber Criteria
III.D.2.3	-	Liquid Pathway Radiological Control
III.D.3.1	-	Radiation Protection Plans
III.D.3.3	-	In-Plant Radiation Monitoring
III.D.3.4	-	Control Room Habitability

ENCLOSURE 4

ENCLOSURE 4

PROPOSED FEDERAL REGISTER NOTICE

NUCLEAR REGULATORY COMMISSION

10 CFR PART 50

PENDING CONSTRUCTION PERMIT AND MANUFACTURING LICENSE APPLICATIONS

AGENCY: U. S. Nuclear Regulatory Commission

ACTION: Proposed Licensing Requirements for Construction Permits and Manufacturing License

SUMMARY: The Nuclear Regulatory Commission is considering requirements to take into account in the design of pending construction permit (CP) and manufacturing license (ML) applications lessons learned in connection with the Commission's consideration of the TMI-2 accident. There are currently pending six CP applications for eleven plants and one ML application for eight floating nuclear plants. Staff review of these applications has been suspended since the TMI-2 accident on March 28, 1979 pending formulation of a licensing policy to appropriately reflect the lessons learned from the accident.

DATES: Comment period expires 45 days from the date of publication of this notice.

ADDRESSES: Written comments should be submitted to the Director of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555.

FOR FURTHER INFORMATION CONTACT: Robert A. Purple, Deputy Director, Division of Licensing, Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Phone (301) 492-7672.

SUPPLEMENTARY INFORMATION: Based upon its extensive review and consideration of the issues arising as a result of the Three Mile Island accident, the Commission recently approved the TMI Action Plan, NUREG 0660. The Commission noted that the Action Plan presents a sequence of actions. That will result in a gradually increasing improvement in safety as individual actions are completed and the initial immediate actions that were taken soon after the accident are replaced or supplemented by longer term improvements.

By Policy Statement dated June 16, 1980, the Commission identified (in NUREG 0694) the set of TMI-related requirements for new operating licenses that are necessary and sufficient for responding to the TMI-2 accident. The Commission further decided that current operating license applications should be measured against the regulations, as augmented by these requirements.

The staff is now developing a position with respect to the set of necessary and sufficient TMI-related requirements that should be applied in the review of applications for construction permits and manufactoring licenses for nuclear power plants. In developing this position, the staff considered three options:

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

Option 1 would minimize the review and construction impact, thereby minimizing delays in reaching regulatory decisions for the planned facilities. The principal disadvantage of Option 1 is that it fails to take advantage of the fact that, since construction has not started, it would be relatively easy to provide design flexibility to implement potential significant safety improvements.

Option 2 would maximize the safety improvements but would result in extensive delays. The staff believes that the costs of such delays are not justified provided that design flexibility can be demonstrated.

The staff believes that Option 3 is a suitable compromise between the extremes of Option 1 and 2. This option will ensure that approved action items in the Action Plan are applied to the new CPs and will provide for early consideration of added safety measures that can be incorporated into the design without the need for inordinately costly backfit. By establishing a clear statement of requirements with respect to the issues to be determined by rulemaking, a degree of stability is introducted into the CP review process thereby allowing prospective applicants to make better-informed decisions.

In its review of the Action Plan the staff has identified four areas that they believe merit special attention. The following identifies these areas and describes the staff's present position with respect to the requirements that should be met by CP and ML applicants.

1. Siting

The Commission has already established a transition policy for CP applicants. CP applicants would be asked to compare their sites with the recommendations of NUREG 0625, as modified by the NRC's Office of Policy Evaluation and Advisory Committee on Reactor Safeguards. At such time as the proposed rule on siting is issued for comment

(scheduled for October 1980), CP applications would be assessed against the criteria contained in the proposed rule and any needed additional requirements will be proposed by the staff.

2. Degraded Core Rulemaking

CP and ML applicants would describe the degree to which their designs conform to the proposed interim rule. Applicants would also provide reasonable assurance, to the extent practicable and taking into account the present state-of-the-art in this technology that issuance of CPs and MLs will not foreclose or preclude the modification of the facilities to accommodate potential requirements that may result from the rulemaking proceedings. These potential requirements include such features as filtered vented containment, molten core retention, and hydrogen control systems. Special attention would be given to those facility designs with small containment volumes, i.e., ice condenser and Mark III containment design.

Prior to issuance of the CP or ML, applicants would be required to submit their evaluation of the additional features, both preventive and mitigative, they propose to include at their facilities that have the potential for significant risk reduction.

3. Reliability Engineering

CP and ML applicants would perform simplified system reliablity analyses for the following systems: subcriticality systems, emergency feedwater systems (PWRs), reactor core isolation cooling system, (BWRs), ECCS injection and recirculation systems, shutdown cooling system, containment cooling and spray systems, safety features actuating systems, and auxiliary systems upon which these depend (alternating and direct current, compressed air, essential service water or cooling systems, and heating, ventilating and air conditioning systems). These analyses would use event-tree and fault-tree logic techniques to identify design weaknesses and possible system

modifications that would be made to improve the capability and reliability of the above systems under various transient and LOCA events. Particular emphasis would be given to determining potential failures that could result from human errors, common causes, single point vulnerabilities, and test and maintenance outages.

CP and ML applicants should provide sufficient information to describe the nature of the studies, how they are to be conducted, the completion dates, and the program to assure that the results of such studies are factored into the final designs.

4. Emergency Preparedness

NTCP applicants would submit, prior to the issuance of construction permits, a discussion of their preliminary plan for coping with emergencies addressing the amended rule (Appendix E to 10 CFR Part 50) as it applies to construction permit applications. Sufficient detail would be presented to provide reasonable assurance that the requirements will be implemented properly.

The remaining Action Plan items that the staff has determined to be applicable to the pending CP and ML applications are set forth in NUREG _____ which also sets forth the required commitment or design information necessary to permit completion of the safety reviews. As Action Plan Decision Group C items become approved by the Commission, they would be added as requirements for CP and ML applicants.

Public comments are requested with respect to: (1) the four areas identified above for special consideration; and (2) the requirements identified in NUREG _____. Following receipt of public comments, the staff will finalize its position and present appropriate recommendations for Commission consideration.