UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Title: BRIEFING ON FINAL RULE ON EMERGENCY PLANNING AND PREPAREDNESS REQUIREMENTS FOR NUCLEAR POWER PLANT FUEL LOADING AND INITIAL LOW POWER OPERATIONS

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BRIEFING ON FINAL RULE ON EMERGENCY PLANNING AND PREPAREDNESS REQUIREMENTS FOR NUCLEAR POWER PLANT FUEL LOADING AND INITIAL LOW POWER OPERATIONS

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[PUBLIC MEETING]

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Nuclear Regulatory Commission
One White Flint North
Rockville, Maryland

THURSDAY, SEPTEMBER 8, 1988

The Commission met in open session, pursuant to notice, at 2:00 p.m.

COMMISSIONERS PRESENT:

LANDO W. ZECH, Chairman of the Commission
THOMAS M. ROBERTS, Member of the Commission
KENNETH ROGERS, Member of the Commission

STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

S. Chilk
V. Stello
M. Cunningham
M. Malsch
M. Jamgochian

* * * * *

P R O C E E D I N G S

CHAIRMAN ZECH: Good afternoon, ladies and gentlemen. The purpose of today's meeting is to receive a briefing from the NRC Staff and the Office of the General Counsel on a rulemaking designed to clarify emergency planning requirements for fuel loading and low power testing of nuclear power plants. The staff has prepared for Commission consideration a final rule which, if adopted, would conclude the rulemaking.

The rulemaking began with the issuance in May of this year of a proposed rule with a request for public comment. I understand from the staff that some 1700 persons and organizations have submitted comments on the proposed rule. I think that is commendable, and I'd like to express my appreciation to all those who took the time and effort to write to us and to contribute to the resolution of these issues.

At the time we issued the proposed rule, the issue identified as needing possible correction was an apparent inconsistency in the Commission's Emergency Planning Rule issued in 1982. That rule stated that for low power testing, only on-site emergency planning would be needed; however, the statement of considerations accompanying that rule stated that before authorizing low power testing the NRC would review systems such as sirens for prompt emergency notification of the public off site.

The proposed rule was designed to cure that

inconsistency and to reaffirm that only on-site emergency planning is needed for fuel loading and low power testing.

We have now had the benefit of extensive public comment and the NRC Staff has had the opportunity to review and respond to those comments as it prepared a final draft rule for our consideration. And before we ask the staff and the general counsel to proceed, I'd like to make one additional comment.

I gather from the staff paper which has been prepared for us that some of the commenters believe that this rule change is simply designed to assure a license for Seabrook. I personally do not view it that way; I think we have a responsibility to assure that our regulations are sensible and consistent, and when you find problems you fix them. And the way you find problems in regulations is often in individual cases.

Just last year we had to change our emergency planning rules because there was a major gap in them; there was no specific discussion of utility plans, at least specific enough for all to understand completely. We made that change, and the charge was made that we were just trying to assure licenses for certain plants. The Commission was sued over that rule change and just the day before yesterday, the court upheld the Commission.

I think the decision is relevant to the rule we're talking about today, and I'd like to hear the general counsel's

view on that specific point. It might be useful if the general counsel would also describe the decision because I don't think it's gotten much press coverage yet and persons in the audience may not be aware of the decision. So I would appreciate your addressing that issue as well as the issue that we're focusing on today.

I understand that copies of the Staff Memorandum should be available at the entrance to the meeting room. Do any of my fellow Commissioners have any opening comments before we begin?

[No response.]

Mr. Stello, you may proceed.

MR. STELLO: Thank you, Mr. Chairman. I'll turn very quickly to Marty Malsch from the Office of General Counsel who will conduct the bulk of the briefing, and Mr. Mike Jamgochian following that will give you a very brief summary of the extensive comments that we've had. Then of course we'll answer any questions that may come up.

With that, let me ask Marty to begin and we'll follow immediately with Mr. Jamgochian.

CHAIRMAN ZECH: Thank you very much. Please proceed.

MR. MALSCH: Thank you, Mr. Chairman, and members of the Commission. What I'd like to do this afternoon is five things. First, describe the background and purpose of the rulemaking; secondly, describe the proposed rule that was

published just this last May; third, briefly describe and characterize generally the public comments that we received; fourth, say a little bit about our proposed response to the comments; and finally, to describe what the staff recommendations are to you with regard to the form of the final rule.

Before I do that I should note that the paper and the rule before you here were drafted by OGC, but obviously the safety risks of low power operation and the proper role of emergency planning for low operation are critical to the rulemaking, and so for these kinds of issues we've relied in drafting the paper and the rule on the judgments and analyses of the NRC Staff, and we have staff members here to answer any questions you may have about those kinds of issues.

With that, let me go first to background and purpose. The rulemaking before you today focuses on what emergency plans need to be reviewed and approved prior to low power operation. The Commission's attention was focused on this issue when it considered an Appeal Board decision in Seabrook, ALAB-883, holding that an approved prompt public notification system was required prior to low power operation. This Appeal Board decision was in turn based upon the record of a 1982 Commission rulemaking which defined, for the first time, what the emergency planning needs were for low power as distinguished from full power operation.

The Seabrook decision by the Appeal Board prompted our office, OGC, and then the Commission obviously, to examine and research carefully the record of the 1982 rulemaking because that was critical to the Appeal Board's decision. That research into the rulemaking record showed the following.

First of all, the overall thrust of the 1982 rule was that an applicant's emergency plan needed to be reviewed and approved before low power licensing, but because of the lower safety risks at low power operation there was no need to have, prior to low power, a reviewed and approved state or local emergency plan to protect residents in the Emergency Planning Zone. That is to say, no need for a reviewed and approved plan for protection of persons off site prior to low power.

But in the rule Preamble but not in the rule itself, the Commission stated that there would still be a review of certain so-called off-site aspects of applicants' emergency plans. Among these off-site aspects that would still need to be reviewed and approved would be provisions, the Commission said, for prompt public notification in the event of an accident.

This research into the '82 rulemaking record then led to the following questions. What is the safety basis for requiring that these so-called off-site aspects of applicants' emergency plans be reviewed and approved prior to low power if, as the '82 rule Preamble said, the safety risks of low power

are sufficiently low that state and local emergency plans needn't be reviewed and approved? And secondly, why were these Commission states in the '82 Preamble confined to the rule Preamble and not included in the rule itself?

We recommended the need for public input on these questions and related questions by rulemaking rather than try to answer these questions based solely upon the views of the parties in one licensing case. And that prompted the Commission to publish the proposed rule published last May, which is the rulemaking before you.

That leads to the purpose of the rulemaking here, and that is to establish more clearly in the rules themselves -- not just in the Preamble or related discussions but in the rules themselves -- what are the emergency planning requirements for low power. And specifically, what off-site aspects of emergency plans need to be reviewed before low power operation is authorized.

With that, let me describe the proposal that the Commission published for comment last May. It would require NRC findings on the applicant's on-site plan and only those off-site elements of that plan which could be reasonably be expected to be needed in the event of an emergency at low power operation. The focus on these so-called off-site elements in the proposed rule is on such coordination by applicants with off-site agencies as may be needed to bring off-site personnel

and equipment onsite to mitigate and contain the accident. For example off-site fire equipment and medical services may be needed to deal with a fire and to treat injured plant workers.

A secondary focus of such requirements is on coordination with off-site agencies to ensure that off-site authorities are kept informed of plant status, including details of any plant emergency, so that they can be of maximum assistance to the response and so importantly, that they can respond fully and accurately to questions from the media and the public about what's going on onsite.

Under the proposed rule, it would not be necessary before low power to establish compliance with the full power standard, which requires that means be established to provide early notification and clear instruction to the populace within the Emergency Planning Zone. The rationale for this is that the low risks of low power operation do not simply justify such a requirement.

To the extent persons offsite become concerned about an accident and potential effects, plans would still be in place for the licensee to keep off-site planning agencies informed, and licensees in conjunction with these agencies could also, in turn, keep the public and the media informed. So that was the Commission's proposal last May.

Next, let me get to the public comments. The rule was published for public comment in the Federal Register on May

9th of this year. There was an original 30-day comment period; it was then extended for an additional 15 days. Even though this was a relatively short comment period we received a large number of public comments; approximately 1700.

In general, the comments ran as follows. First of all, they ran generally two to one in favor of the proposed rule. The favorable comments came from a variety of sources; public citizens adn citizens groups, the utilities, nuclear industry organizations such as NUMARC, a local government official and one federal agency, Department of Energy.

Comments opposing the rule came mostly from private citizens who live near Seabrook, but they also included some state and local government officials, some members of Congress and some environmental groups.

The majority of the comments, both in favor of the proposed rule and against the proposed rule, focused more on the benefits or problems with licensing Seabrook than they did on the generic safety issues raised by the rulemaking.

Since we did get 1700 comments they are obviously too numerous to address one by one individually, but the critical comments all fall into 15 general categories, and these major categories, each of them is addressed specifically in the paper and the draft notice of proposed rulemaking that's before you. And that's how we've dealt with the comments.

Staff here can give you more details about the

comment response, but in general, the analysis of comments led the Commission staff to reaffirm the '82 safety analysis regarding the relative low risks of low power operation.

That leads me to the final rule which is before you today as a staff recommendation. It's similar to the proposed rule but there have been some relatively minor changes made in response to public comments. Firstly, in response to a public comment or collection of public comments along the lines that the '82 safety evaluation was premised upon a short period of reactor operation at low power, whereas licenses authorized under the rule would be authorizing operation for 40 years at 5 percent power, -- in response to that comment we've discussed the purposes of the rule and are clarifying that the purpose of licenses under this rule will be only licenses for low power testing and operator training. It's not contemplated that under this rule a utility would obtain a license to actually operate a plan for 40 years at 5 percent power.

The second change that we're making from the proposal is that we are going to continue to require that systems onsite for monitoring off-site releases be in use, as opposed to merely being available. That's the second change we're making in response to public comments.

In particular, as I said, the staff is reaffirming in this rulemaking and would have the Commission reaffirm itself the safety rationale for the 1982 rule. Specifically, the

staff would reaffirm that the safety risks at low power are sufficiently low that there's no need to rely on a reviewed and approved off-site emergency plan for there to be protection of the public health and safety. The rule is based in this regard, in critical measure, not only predictions as to what kind of emergency response there might be if there were to be an accident at low power; notwithstanding that, the off-site emergency plans are not reviewed and approved. Instead, the judgment is critically based simply on the lower level of risk associated with accidents at low power.

The rule before you will, for the first time, clearly require that certain off-site aspects of applicants' emergency plans be reviewed and approved prior to low power. It will thereby codify certain essential aspects of the old '82 rule Preamble. Things that were included in the Preamble but for some reason were not included in the rule itself.

As I indicated, though, the requirement or provision and statement by the Commission in the old rule Preamble that prompt public notification systems would be reviewed and approved prior to low power is not being included because in the staff's judgment of the safety evaluation behind the rule it does not warrant imposing such a requirement.

I should note finally in describing the final rule that nothing in the final rule affects the Commission's licensing requirements for full power operation; they are

completely unchanged. The rule focuses solely upon what emergency planning requirements ought to be required for low power operation; specifically, low power testing and operator training.

Let me add in response to the Chairman's comment something about the Court of Appeals decision earlier this week and how that relates to what is before you. That decision related to petitions to review filed by a number of parties which were challenging the standards by which the NRC would use, in deciding whether to license a utility to operate a nuclear power plant, and evaluate the utility's own off-site emergency response plan. The rule operated under situations in which, for whatever reason, state and local governments had not participated in emergency planning. All of Petitioner's legal challenges to this Commission were rejected in a unanimous opinion written by the chief judge of the Circuit.

In particular, the primary issue in the case and Petitioner's primary contention was that it was unreasonable for NRC to presume that in the event of an actual emergency, states and localities which had previously refused to participate in emergency planning will nevertheless follow an emergency plan prepared by the utility, the so-called realism rebuttal presumption.

The court said it was hardly unreasonable for the NRC to predict that state and local governments, notwithstanding

their misgivings about the adequacy of a utility plan or their opposition to the particular plant location -- not unreasonable for us to predict that notwithstanding this that the governments would, in the event of an actual emergency, follow the only existing emergency plan; namely, the utility plan. The court agreed with the NRC's reasoning. Specifically, the court agreed that its prediction and presumption was supported by common sense and also by the uncontested fact, that was part of the administrative record of that rulemaking, that state and local governments preferred a planned emergency response to an ad hoc one.

Now of special relevance to this rulemaking, the court also rejected the contention offered by petitioners there that off-site emergency planning, as opposed to technical matters dealing with plant construction and operation, that off-site emergency planning issues are outside of NRC's area of traditional expertise and that therefore, NRC judgments and opinions about off-site emergency planning matters were not entitled to the kind of deference which courts normally accord to expert administrative agencies. The court specifically rejected that contention and said that NRC judgments, rules and decisions in the area of off-site emergency planning are entitled to the same measure of judgment and discretion as NRC judgments about other kinds of safety questions.

That obviously has an effect on this rulemaking

because this rulemaking is involving emergency planning judgments as well as nuclear safety technical judgments, and it suggests that our expertise should be applied to this rulemaking just as it is applied to other Commission rulemakings.

With that, let me turn it over to the staff to give you some more information about the public comments and our response to them.

CHAIRMAN ZECH: Thank you very much, you may proceed.

MR. JAMGOCHIAN: I am prepared to provide a summary of the public comments, but Mr. Malsch has quite thoroughly gone through those. Real quickly, we did receive during a 45-day public comment period approximately 1700 comment letters. Approximately going two for one for the rule, which is very unusual in the emergency planning area. We received approximately 1100 that were for promulgation of the rule, approximately 600 public comments against promulgation of the rule; 500 of those were in a form letter, simply Xeroxed and signed by individuals.

As far as those that were for, it was overwhelmingly from private citizens, either handwritten or typed. Again, very unusual. A few utilities, a few law firms or professional organizations that represent utilities, I think there were two. One state government official and one federal agency, DOE.

As far as the comments that were against, there were

approximately 100 individual letters from private citizens; again, 500 form letters. Seven state or local government officials -- actually there were three state official agencies, state governmental official agencies, and four local governmental official agencies, primarily from the Massachusetts-New Hampshire area. And three congressional representatives.

Are there any questions on the public comments?

CHAIRMAN ZECH: Could you give us just a little bit more on perhaps the main topic from the comments, either the main topic that was for the proposed rule and perhaps the main comments that were against the rule?

MR. JAMGOCHIAN: Clearly, the overall thrust from the public concern for or against was, We realize now that you're taking down the sirens or the prompt public notification systems and we have a fundamental concern: how are we going to be notified in the event of an emergency? Would we be notified? Would we be kept in the dark? Certainly those that were against promulgation of the rule concerned themselves with that and said, We won't be notified. That's clearly not correct, and in fact we focused on that in the final rulemaking in the supplemental information. We said that the licensee will in fact be notifying and coordinating with state and local governments to permit that notification.

As far as the commenters that were for promulgation

of the rule, their focus was, again, We're sure -- they took a different viewpoint. We're sure we will be able to be notified; there's a whole lot of time in order to be notified. But they did concern themselves with their ability to be notified.

Secondly, as far as those individuals that were for promulgation of the rule, their focus was the individual plants. Overall, there's a perception, as you mentioned earlier in your opening statement, there's a perception on both sides that this was for the Seabrook Nuclear Power Plant. And those that were for the rule said, Amen, it's about time. And those that were against it said, How dare you.

CHAIRMAN ZECH: Thank you very much.

MR. MALSCH: Mr. Chairman, if you wish, I could go through the 15 categories of major comments and summarize the nature of the category and the response.

CHAIRMAN ZECH: I think that would be helpful if you do that, just summarize the main categories anyway. Please.

MR. MALSCH: Let me just go through them in the order in which they're presented in the draft rule. Several of them were focused on the safety issue, the risks of operation at low power.

The first comment is one that I alluded to earlier, and that was that the risk assessments upon which the '82 rule was based were premised on operation over a short timeframe,

operation at 5 percent power over a short timeframe; but the proposal didn't contain any time limit and would authorize in theory operation at 5 percent for 40 years. The general response to this is to say, Listen, we contemplate under this rule that low power licenses will be issued only for the purposes of fuel loading and low power testing and operator training. We don't intend to authorize operation at 5 percent power for the full license term and the rule has been in fact clarified to provide just this.

The second comment was that even though we are authorizing only low power operation, there would still be as a result of low power operation an inventory in the reactor core of radionuclides with health significance that could impose a substantial public health and safety hazard. The answer is yes, there are some biologically significant fission products generated in the reactor core as a result of reactor operation, but nevertheless, the risk at low power is still sufficiently low to provide reasonable assurance that the public health and safety is protected, even in the absence of a fully reviewed and approved off-site emergency plan, and even in the absence of a requirement for prompt public notification systems to be in place.

The third category of comments is also a safety issue. It was the contention that testing at low power is in fact riskier than full power operation because it involves

deliberately defeating safety systems. The response is well, yes, some selected safety systems may be disabled during low power testing; that's part of the testing program, but that special procedures are in place to deal with this kind of thing and that this and other factors result in a situation in which the plant is still at a much lower state of risk relative to full power operation.

The fourth comment is a kind of familiar one and that is that the Chernobyl accident occurred while it was at low power and so how can we still say that low power testing poses low risks. The answer to that is that the U.S. light water reactors don't have the kind of accident potential that Chernobyl does, and so the comment simply doesn't apply to the kinds of reactors which this rule would apply to.

The fifth comment is one that the Commission has dealt with in cases in the past, and that is that low power licensing fails National Environmental Policy Act cost-benefit analysis. Our response to that issue is that we have not addressed that in this rulemaking; that is addressed on a case basis, it's beyond the scope of what is before the Commission here.

Similarly, there was a comment that a low power license should not be issued where it is not certain that a full power will ever be granted. Again, this is not the subject of this rulemaking. In the past, the Commission has

addressed this issue in individual adjudicatory opinions.

The seventh category of comments and the eight category of comments both generally can be characterized as follows: that you are reaffirming the rationale for the '82 rule, yet you're changing the '82 rule results. How can you rationalize this? The answer is that first of all, one purpose of the rule change and an important purpose is to clarify language in the rule itself that could easily be read to say that no off-site emergency planning elements need be reviewed prior to low power. Remember that the commitments by the Commission in the '82 rule Preamble to review certain off-site aspects of applicants' emergency plans were never included in the actual rule itself, so they don't appear in the Commission's collection of codified regulations. And one purpose of this rulemaking is to rectify that difficulty and to, for the first time, codify the Commission's review practices.

Secondly and more importantly, the staff believes that the proposal before you today and the proposal published for comment is in fact more consistent with the Safety Analysis behind the 1982 rule change than the statements in the rule Preamble contained in that change. So we believe that this rulemaking in total, including the rulemaking record, is more consistent with what was intended in '82 and more consistent with the '82 Safety Evaluation. So we see no inconsistency

here.

The ninth category of comments deals with the issue of whether we have addressed adequately the risk of a terrorist attack at low power, sabotage at low power. The staff's response is that it's the Commission's judgment that compliance with the Commission's Physical Protection Rules -- and that will be required before low power operation -- that compliance with those physical protection requirements will reasonably assure that the risk from terrorism or sabotage is sufficiently low so as not to undercut the Commission's safety conclusion that the safety risks at low power operation are much less than at full power.

The tenth comment is one that Mike Jamgochian alluded to and it's an important one, and that is that whatever may be the objective risks of low power operation there could still be public panic in the event of an accident. Our response is that it is true that regardless of the objective lack of danger, it's possible that members of the public could become uneasy and unnecessarily panic if an accident were to occur at low power. And as its response to this concern, the Commission is still including in the rule a provision that prior to low power there will need to be means to keep state and local response organizations informed of the status of events onsite, and that these off-site agencies through normal communication mechanisms along with the licensee will have the capability to inform the

public if needed in order to prevent any sort of unnecessary panic. But however, that the requirement or provision in the '82 rule Preamble for direct prompt public notification of the public was not necessary to respond to this comment, not necessary to address this particular concern.

The next category of comments deals with the provision for there to be release monitoring equipment available as opposed to in use and available -- as opposed to merely available. And in response to that comment, we are recommending a change in the proposed rule to go back to the prior practice whereby it would still be required that there be available onsite release monitoring equipment. The purpose here would be that even though the Safety Evaluation suggests that the likelihood of an off-site release affecting the public is very small, this kind of monitoring equipment would still be useful at a minimum to confirm that no release has in fact occurred.

Next, there was a comment regard research reactors. The comment was made that the original Commission's Emergency Planning Rules provided for a measure of off-site emergency planning for research reactors, and this contradicts the Commission's current posture with regard to low power operation because some research reactors for which the commenter believed we required off-site emergency planning, operate at power levels comparable to 5 percent power for commercial reactors.

The response to this comment is a simple one, and that is that the premise of the comment is incorrect. It is not the case that research reactors have power levels approximating those of commercial power plants operating at 5 percent power. It's not the case that they're required to have approved off-site emergency plans.

The next comment dealt with an issue which is again outside the rulemaking, and that is that the Atomic Energy Act prohibits the Commission from issuing low power licenses prior to completion of public hearings on all issues, even those issues relevant to full power licensing. Our answer is that the Commission's practice for years has been to separate out low and full power licensing, and that this comment is more properly addressed to other provisions of the Commission's regulations which deal with that situation. And those provisions are not being amended here.

The next comment is another one which the Chairman alluded to, and that is that the proposed rule is designed to allow the Seabrook facility to be licensed; the Commission shouldn't be promulgating rules designed to license particular facilities. And the answer is that the Commission's attention was focused on this issue as a result of the Seabrook operating license case, and it is probably true that the only foreseeable effect of the rule change, at least for the immediate future, is going to be probably on the Seabrook operating license

application. But when the Commission sees problems with its rules, whether it sees those problems in individual cases or whether it seems those problems from other sources, it has an obligation to correct them. As we noted, there was a discrepancy in the '82 rule between the rule Preamble and the rule language. Those potentially affect all license applicants, not just the applicants for Seabrook.

Also, the safety issues raised by the rule change are not specific to any particular plant; they are generic safety issues of the type that are suitable for resolution in rulemaking. And as a matter of law, the Commission is certainly free to address this kind of generic issue on a generic basis through rulemaking, even if the rule change will have its most immediate effect on one license applicant and one license application.

Finally, there was a comment regarding whether members of the public will need immediate medical attention in the event of an accident at low power, and the proposed rule did not provide that arrangements for medical services would be in place for those offsite. And the response is that this is not considered necessary for safety reasons; that it's highly unlikely that members of the public would be exposed to dangerous levels of radiation following an accident at low power, and therefore there was really no need to have a requirement that medical services systems be in place for

members of the public.

That pretty much summarizes briefly the 15 categories of comments. As I've said, there were 1700 public comments but I think these 15 categories of comments fairly encompasses all the major comments, all the significant comments that were made in the rulemaking. And I think by responding to these 15 categories we've given an adequate response to 1700 comments as a whole.

CHAIRMAN ZECH: Thank you very much.

MR. STELLO: Mr. Chairman, I think there's one more point I wanted to make and then we can answer questions generally. We wanted to assure the Commission that it is our judgment -- and the paper explains why -- that a facility operating at low power under the provisions provided by this rule, that such a facility would indeed be safe.

Now, the reasons for that are in the paper and I think they are probably simply phrased, that the source term, and hence the decay heat load, would be significantly lower, by definition at least a factor of 20 lower, and probably significantly more than that because of the limited use to which the facility would be put, at 5 percent power.

Overall then, the response of the facility and the design of the equipment is such that significantly longer times would be available to respond to transients and accidents, which leads us to the conclusion that the likelihood that you

would even have an accident producing fission products that would be released would be very small.

That, coupled with the fact that the particular characteristics of the reactor operating at these lower powers; that is, the slow response to transients and accidents and the fission product inventory would be somewhere perhaps between 25 to 50 times lower than the source terms that were used to evaluate emergency planning at full power, that under those conditions it would be highly unlikely that if you did have an accident that you would exceed the protective action guide, five rem whole body exposure, for the facility even without emergency planning.

This leads us to conclude that from the technical point of view, the safety point of view, we have no reservation with respect to moving forward; we're completely comfortable that the safety impact is not in any compromised with going forward in this direction. We've done some limited analysis to support this in another case in Limerick. I'm not suggesting that we have analyzed every site; we have not, but our technical judgment based on our understanding of operation of the reactor, fission product history and behavior leads us to the conclusion that even without emergency planning offsite we don't need to be concerned because it would be highly unlikely that you would ever get to where a protective action is in fact needed.

That is our presentation, Mr. Chairman.

CHAIRMAN ZECH: Thank you very much. Questions from my fellow Commissioners? Commissioner Roberts?

COMMISSIONER ROBERTS: No.

CHAIRMAN ZECH: Commissioner Rogers?

COMMISSIONER ROGERS: No.

CHAIRMAN ZECH: I should have indicated at the beginning that Commissioner Car is not with us today; he's on official travel. I just have one question. Mr. Stello, you've essentially answered it in your last statement, but the real crux of the issue here as far as I'm concerned is safety, and what we're trying to decide is are prompt notification systems of the public for off-site occurrences needed to protect the public at low power. And you're telling us essentially that the answer is no. I think you've summarized that reasonably well, but just let me ask it in plain language. Is that what your conclusion is? Are you telling us that for low power, the protection of the public, in your opinion, is not a concern, and prompt notification systems are essentially not needed? Is that what you're telling us?

MR. STELLO: That's correct, Mr. Chairman.

CHAIRMAN ZECH: Fine. Commissioner Rogers?

COMMISSIONER ROGERS: I do have just one comment that doesn't relate to this particular issue, but I think it's well to keep in mind that it is very important that all aspects of a

rule be considered from the standpoint of consistency. And part of the problem that is addressed by this rulemaking is a lack of consistency with the Preamble and the body of the rule.

And to me, that's very unfortunate and something that good practice should see does not happen. The Preamble, whatever is stated in the Preamble of a rule should be totally consistent with what the rule itself says. One shouldn't be able to read two separate interpretations into the meaning of a rule by reading the Preamble and then reading the rule itself.

And I would just simply reiterate a position which I'm sure has already been stated elsewhere, that it is very important that this kind of discrepancy not appear again. That when we issue a rule, it should hang together as an entire entity and be totally consistent, and one should not have to ask a question as to whether the Preamble or any parts of the rule are inconsistent with any other parts of it. And I would hope that we would take this as an example of something that in the future we will not have appear again.

MR. MALSCH: You're absolutely correct. All parts of the package need to stand and be consistent with each other.

CHAIRMAN ZECH: I'd like to just agree with Commissioner Rogers' comments. Our business is public health and safety. Thoroughness is awfully important for us and accuracy is important, too, and so I recognize that in this case that we did have a discrepancy, we're correcting that

discrepancy, and I believe that we should learn a lesson from this. And I would propose that thoroughness in our work is expected by the public, they deserve it, and I would hope that we would take this as a lesson learned for the future.

If there are no other comments from my fellow Commissioners, I would like to thank the staff and the Office of General Counsel for this very important briefing. I hope that we will be able to act on this measure in a short time. I would ask my fellow Commissioners to please bring this to their attention. And unless there are any other comments, we stand adjourned. Thank you very much.

[Whereupon, at 2:45 p.m., the Commission meeting was adjourned.]

CERTIFICATE OF TRANSCRIBER

This is to certify that the attached events of a meeting of the U.S. Nuclear Regulatory Commission entitled:

TITLE OF MEETING: BRIEFING ON FINAL RULE ON EMERGENCY PLANNING AND PREPAREDNESS REQUIREMENTS FOR NUCLEAR POWER PLANT FUEL LOADING AND INITIAL LOW POER OPERATIONS

PLACE OF MEETING: Washington, D.C.

DATE OF MEETING: THURSDAY, SEPTEMBER 8, 1988

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

Suzonne Young

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RULEMAKING ISSUE
(Affirmation)

September 1, 1988 SECY-88-246

For: The Commissioners

From: Victor Stello, Jr.
Executive Director for Operations

Subject: FINAL RULE ON EMERGENCY PLANNING AND PREPAREDNESS REQUIREMENTS FOR NUCLEAR POWER PLANT FUEL LOADING AND INITIAL LOW POWER TESTING

Prior History: SECY-88-109

Background: On May 9, 1988, the Commission published in the Federal Register (53 FR 16435) a proposed rule clarifying and amending the emergency planning and preparedness requirements for fuel loading and low power testing of nuclear power plants. The need for the rule surfaced in the context of the Seabrook licensing proceeding, where an Appeal Board decision on the necessity of a prompt notification system prior to low power testing focused attention on a discrepancy in

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the existing 10 CFR § 50.47(d) between the language of the rule itself and certain statements in the Statement of Considerations accompanying the rule's promulgation in 1982. In SECY-88-109 (April 20, 1988), the NRC Staff recommended amending the rule consistent with the analysis done in 1982 to clarify that, while the 1982 rule on its face requires no consideration of offsite elements of emergency planning for low power testing, certain offsite elements enumerated in the 1982 Statement of Considerations must be satisfied for low power. The Staff recommended that prompt notification of the public not be required before low power, since even in a worst case analysis of a low likelihood accident, such notice would be far in excess of what would reasonably be needed.

Discussion:

A. Response to Proposed Rulemaking

The proposed rule produced a huge volume of public comment. Nearly 1700 comments have been received to date. The overwhelming majority came from private citizens, mostly in the New England area. Comments also came from utilities, industry groups, State and local

government agencies and officials, members of Congress (Sens. Kerry and Humphrey, Cong. Markey), the Department of Energy and several local and national environmental groups. FEMA did not comment. The comments ran approximately two to one in favor of promulgation of the proposed rule. The favorable comments came primarily from private citizens and citizens' groups, with a sprinkling from utilities, industry organizations such as NUMARC, one local government official and the Department of Energy. Of the comments opposed to promulgation of the rule, approximately 500 were form letters from residents of the area surrounding the Seabrook nuclear power plant. The remaining 60 to 70 comments in opposition were from private citizens, State and local government officials, the three above-named members of Congress and environmental groups.

The great majority of comments, particularly those supporting the rule, addressed the licensing of the Seabrook facility more than they did the generic emergency planning question raised by the rulemaking. Most of

those who wrote in support of the rule expressed the opinion that the facility was ready to be licensed, that the power the facility would generate was needed and that licensing should not be allowed to be held up by political forces. Many also endorsed the Commission's technical conclusions that the risk is sufficiently small, the core fission product less and the time available to take action so great in the unlikely event of an accident at low power that prompt public notification is not necessary to protect the public health and safety.

The majority of comments against the rule, including the 500 form letters, expressed the opinion that the Commission was compromising public health and safety in order to put Seabrook on line. Fifteen major comments were identified for analysis:

1. The risk assessments upon which the rule is based are based on operation over a short time frame. However, there is no time limit for low power testing.

2. The technical basis for both the current rule and the 1982 rule is flawed in that, at 5% power, substantial inventories of biologically significant fission products will be developed in from eight to forty days. Thus, while the inventory of all radionuclides developed during low power testing is reduced

compared to full power operation, the inventory of radionuclides with public health significance still poses a substantial prompt public health hazard. In addition, the inexperience of the operators during low power testing and the newness of the system create a greater potential for undiscovered defects and incidents.

3. Testing at low power is riskier than full power operation because it involves deliberately defeating safety systems.

4. The Chernobyl accident occurred while the reactor was at low power. Why does the NRC still say that the risk of low power testing is low?

5. Low power licensing fails the cost-benefit analysis required by NEPA.

6. A low power license should not be issued when it is not certain that a full power license will ever be granted. The Shoreham reactor was irradiated unnecessarily.

7. The proposed rule states that the safety analysis performed in 1982 is still valid. After performing that analysis, the NRC decided to require that certain offsite aspects of emergncy plans be in place prior to low power licensing. The NRC has given no rationale for changing the rule, while admitting that the previous analysis is still valid.

8. The NRC has previously stated that review of the licensee's onsite response mechanism will necessarily include aspects of some offsite elements. Why is the NRC changing this position?

9. The new rule does not address the risk of a terrorist attack or sabotage at low power.

10. The risks of an accident at low power are not confined to those onsite. If an accident were to occur at low power, public panic could ensue.

11. The change in proposed Section 50.47(b)(9) to modify the requirement for

provisions for monitoring offsite consequences from "in use" to "available" will create unacceptable delay in the identification of an actual or potential hazard to the public stemming from a radiological emergency.

12. The original rule justified retention of emergency planning for research reactors, but not for commercial reactors, since research reactors were perceived to be located in areas of high population density. This contradicts the Commission's current posture that the relatively lower risks of low power testing justify elimination of offsite safety measures, since it concedes that there is an accident risk at low power serious enough that a research reactor (much smaller than a power reactor) needs a full emergency plan.

13. The Atomic Energy Act prohibits authorization of low power testing prior to completion of public hearings on all issues material to full power licensing.

14. The proposed rule was designed to allow the Seabrook facility to receive its low power license. The Commission should not promulgate a rulemaking designed to license a specific facility rather than to promote the public health and safety. The issue should be addressed in the pending Seabrook adjudication, not in a rulemaking.

15. Members of the public may need immediate medical attention in the event of an accident at low power. The new rule does not provide that arrangements for medical services will be in place for those offsite.

B. The Final Rule

The draft final rule is essentially the same as the proposed rule but with some modifications and clarifications in response to public comments. The analysis of the fifteen major comments is contained in the Statement of Considerations, which is

self-explanatory. First, the changes in response to public comment are a clarification that the purpose of low power licensing is low power testing and operator training, not operation. Second, the final rule will continue staff practice of requiring, prior to low power, that onsite systems for monitoring releases will be "in use", and not merely "available".

This rule does not resolve the issue remaining open in the Seabrook case as to whether applicants in other cases would be required to file a state, local or utility plan before issuance of any low power license. Such a change would be beyond the scope of this rulemaking. In order to provide guidance to the NRC staff in processing future applications, we recommend that this ambiguity be resolved by the Commission in the near future.

Alternative: For the Commission to decline to promulgate the draft final rule and to address the emergency planning and preparedness requirements for fuel loading and low power testing in the context of the Seabrook adjudication under existing rules.

Pro - This option will avoid possible litigation on the rule.

Con - This option continues to present the difficulties discussed by OGC in its analysis of ALAB-883.

Coordination: OGC has reviewed this paper and has no legal objection.

Recommendation: Approve the draft final rule as attached.

Sunshine Act: An affirmation session open to the public is all that is legally required. However, because of the large volume of public comment and the Congressional interest shown, the Commission may, in its discretion, wish to schedule an open meeting on the subject before voting.

Victor Stello, Jr.
Executive Director
for Operations

Enclosure:
Federal Register Notice
of Final Rule

Commissioners' comments or consent should be provided directly to the Office of the Secretary by c.o.b. Thursday, September 15, 1988.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Thursday, September 8, 1988, 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.

This paper is tentatively scheduled for affirmation at an Open Meeting during the Week of September 19, 1988. Please refer to the appropriate Weekly Commission Schedule, when published, for a specific date and time.

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NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Emergency Planning and Preparedness Requirements
for Nuclear Power Plant Fuel Loading and
Low Power Testing

AGENCY: Nuclear Regulatory Commission

ACTION: Final Rule

SUMMARY: The Nuclear Regulatory Commission is amending its regulations to establish more clearly what emergency planning and preparedness requirements are needed for fuel loading and low power testing of nuclear power plants. The rule itself will now require NRC findings on the licensee's emergency plans for dealing with accidents that could affect persons onsite. The Commission's prior practice of considering certain offsite elements of licensee's plans has been modified and codified in this regard to provide that NRC findings will be required before fuel loading or low power testing on coordination with offsite personnel and agencies so that necessary resources can be applied onsite for mitigating and containing accidents, and so that offsite agencies may be kept informed of plant events. The rule will also change the prior practice, never included in the prior rule itself, of reviewing plans for prompt public notification in the event of an accident. This practice of reviewing an offsite element of licensee emergency plans which has no onsite application is being discontinued as not necessary for public safety. The rule does not change the emergency planning requirements which must be satisfied before full power operation can be authorized. Nor is

the rule intended to overrule Public Service Company of New Hampshire, et al. (Seabrook Station, Units 1 and 2), CLI-87-2, 25 NRC 267 or CLI-87-3, 25 NRC 875 (1987). Also, no new requirements are being imposed by the rule beyond those that have been previously required by rule and by prior NRC practice. The rule makes clear that no offsite elements of the applicants emergency plan, other than those set forth in revised § 50.47(d), need be considered in connection with low power licensing.

EFFECTIVE DATE: [insert date 30 days from publication in Federal Register]

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SUPPLEMENTARY INFORMATION:

I. Background

On May 9, 1988, the Commission published in the Federal Register (53 FR 16435) a notice of proposed rulemaking which would establish more clearly what emergency planning and preparedness requirements are needed for fuel loading and low power testing of nuclear power plants. As detailed in the notice of proposed rulemaking, 10 CFR Section 50.47(d) as promulgated in 1982 provided that only a finding as to the adequacy of an applicant's onsite emergency planning and preparedness is required for low power. 47 Fed. Reg. 30232.

an accident. However, the provision in the Statement of Considerations that systems for prompt notice to the public in the event of an accident would also be reviewed before low power focused on protection of persons offsite. The Statement of Considerations for the 1982 rule change gave no clear and consistent rationale for why the particular element dealing with public notification should be included. The foundation for that rulemaking was the Commission's determination, described in more detail below, that the degree of emergency planning and preparedness necessary to provide adequate protection of the public health and safety is significantly less than that required for full power operation in light of the significantly lower risks associated with even low likelihood accidents at that stage. 47 Fed. Reg. 30233 and note 1. Thus the stated rationale for the 1982 rule would seem to undercut the need for any prompt public notification requirement.

The Commission indicated in 1982 that although at low power plant operators typically have less experience and there is a greater potential for undiscovered defects, the risk to public health and safety at low power is significantly lower than at full power as a result of several factors. Those reasons were stated by the Commission as follows: First, the fission product inventory during low power testing is much less than during higher power operation due to the low level of reactor power and short period of operation. Second, at low power there is a significant reduction in the required capacity of systems designed to mitigate the consequences of accidents compared to the required capacities under full power operation. Third, the time available for taking actions to identify accident causes and mitigate accident consequences is much longer than at full power. This means the operators should have sufficient time to prevent a radioactive release from occurring. In the worst

case, the additional time available (at least 10 hours), even for a postulated low likelihood sequence which could eventually result in release of the fission products accumulated at low power into the containment, would allow adequate precautionary actions to be taken to protect the public near the site (47 FR 30233).

The safety basis for the 1982 rule was reviewed as a necessary part of the instant proposed rulemaking, and the Commission reexamined the need at low power to review those aspects of applicants' onsite plans that seem relevant only to offsite protective measures that may be needed if there were an accident with offsite dose effects. 53 FR 16436-7 (footnote omitted). The proposed rule indicated that the Commission saw no need to review those aspects of applicants' plans that did not have a direct relationship to onsite dose effects in light of the significantly less risk to offsite persons presented by fuel loading and low power testing as contrasted with full power operation. On reexamination in light of public comment, the Commission has reaffirmed the safety conclusion that the safety risk to the public from low power testing is significantly less than the risk to the public from full power operation. Accordingly, the rule is being issued in final form substantially as proposed. However, a number of changes have been made in the rule in response to public comments.

II. Analysis of Public Comments

Nearly 1700 comments were received on the proposed rulemaking. The overwhelming majority were from private citizens, mostly in the New England area. Comments also came from utilities, industry groups, State and local

government agencies and officials, members of Congress, one federal agency and several local and national environmental groups. The comments ran approximately two to one in favor of promulgation of the proposed rule. Of those opposed, approximately 500 were form letters from residents of the area surrounding the Seabrook nuclear power plant. The remaining 60 to 70 comments in opposition were from private citizens, State and local government officials and environmental groups. The comments in favor came primarily from private citizens, with a sprinkling from utilities, nuclear industry organizations, one local government official and one federal agency.

Because of the large volume of comments received, it would be impractical to discuss each individually. The great majority of comments, both for and against the proposed rule, turned on the commenter's opinion on the impact of the rule on licensing the Seabrook facility. Most of the individuals who wrote in support of the rule expressed the opinion that the facility was ready to be licensed, that the power the facility would generate was needed, and that licensing should not be allowed to be held up by political forces. Most commenters in favor of the rule also expressed the opinion that the risks to the public from low power testing were considerably less than those from full power operation, and that prompt emergency notification to the general public should not be necessary at low power.

The significant comments against the rule fall within the scope of fifteen separate major comments. These major comments and the Commission's response to them are set forth below.

Comment 1. The risk assessments upon which the rule is based are based on operation over a short time frame. However, there is no time limit for low power testing.

Response. For many years, Commission policy has been to issue separate "low power" licenses which allow a plant to load fuel and perform testing and operator training at power levels up to 5 percent whenever to do so would expedite the licensing process without prejudicing the rights of any intervening parties. The purpose of the low power test program is to demonstrate that the overall plant performance conforms to the established design criteria, and to confirm the operability of plant systems and design features that could not be completely tested during the preoperational test phase. Tests that are performed during the program are specific to the type of light-water reactor (boiling water reactor versus pressurized water reactor), but typically include determination of in-core flux distribution, moderator temperature coefficients, control rod worths, and adequacy of neutron instrumentation and associated protective functions. Also, during this time operators obtain some valuable additional training manipulating the controls of the reactor at low power levels. In practice, many of these tests and manipulations are performed with the reactor at less than 1% of rated power, and those tests and manipulations which are performed with the reactor at "peak" low power (typically 3% to 4% of rated power) are completed within a day or two. Based on experience with U.S. commercial power plant startup test programs, the period over which a reactor would actually operate at or near 5 percent power during the low power test program is expected to be at most a few weeks, likewise, operation at 5% power beyond these few weeks would not be economically feasable. The safety evaluation supporting this rule assumes that operation under the rule would be consistent with this prior history and practice. To further clarify this point, low power licenses issued under this rule will be for purposes of fuel loading and low power testing and operator training only: steady-state operation at or near 5% for the full license term would not be authorized.

Comment 2. The technical basis for both the current rule and the 1982 rule is flawed in that, at 5% power, substantial inventories of biologically significant fission products will be developed in from eight to forty days. Thus, while the inventory of all radionuclides developed during low power testing is reduced compared to full power operation, the inventory of radionuclides with public health significance still poses a substantial prompt public health hazard. In addition, the inexperience of the operators during low power testing and the newness of the system create a greater potential for undiscovered defects and incidents.

Response. Yes, there are some biologically significant fission products generated in the reactor core during the low power operation contemplated by this rule. But, although during low power testing plant operators typically have less experience and there is a greater potential for undiscovered defects, the risk at low power is still sufficiently low to provide reasonable assurance that public health and safety is protected even in the absence of the requirement for a prompt notification system and other purely offsite elements of emergency plans. This is a result of three factors, which were stated earlier by the Commission and which the Commission reaffirms in this rulemaking as follows: First, the fission product inventory during initial low power testing is much less than during higher power operation due to the low level of reactor power and short period of operation at this power level. The available inventory of fission products that are significant contributors to public health consequences would be reduced by about a factor of 20 for continuous operation at 5% power compared to continuous full power operation. However, as explained above, based on experience with commercial nuclear power

plant startup test programs, operation at or near 5 percent power is only expected for a maximum of a few weeks. This would result in a further reduction in available fission product inventory. Second, at low power there is a significant reduction in the required capacity of systems designed to mitigate the consequences of accidents compared to the required capacities under full power operation. For example, the coolant flow required to dissipate decay heat at 10 hours following a loss of coolant accident in a typical pressurized water reactor would be less than 10 gallons per minute, which is well within the capacity of normal make-up systems. Most of the regulatory requirements for safety systems during reactor power operation, including containment integrity, emergency core cooling, and redundant power supplies, are the same for 5% power operation as they are for 100% power. Third, the time available for taking actions to identify accident causes and mitigate accident consequences is much longer than at full power. This means the operators should have sufficient time to prevent a radioactive release from occurring.

The above safety evaluation makes no assumptions about the time that would be needed to notify the public offsite and to implement an offsite emergency response if one would assume hypothetically that an offsite release would occur: it is based solely on an analysis of the likelihood that an offsite release could occur and of the possible magnitude of that release. However, as an additional, separate consideration, the Commission also believes that, in the worst case, the additional time available (at least 10 hours), even for a postulated low likelihood sequence which could eventually result in release of the fission products accumulated at low power into the containment, would allow notification of both onsite and offsite emergency response

organizations. These organizations would likely have adequate time to implement some offsite response should that be necessary. Without a prompt public notification system in place and an approved and tested offsite emergency plan, there obviously cannot be the same kind of reasonable assurance of offsite protective measures that there would be with a fully reviewed and tested offsite emergency plan should there be an offsite release at low power. However, given the requirements for procedures to notify emergency response organizations and the additional time that will likely be available, it is the Commission's judgment that there will be sufficient time for the emergency response organizations to implement some form of public notification and to carry out some reasonably effective offsite emergency response.

Comment 3. Testing at low power is riskier than full power operation because it involves deliberately defeating safety systems.

Response. While some selected safety systems may be disabled during low power testing, the heat load and fission product inventory are significantly less than at full power. There are a number of methods available to remove this very low heat load generated at low power. In addition, special procedures are developed and followed for these tests, which are closely monitored by plant personnel. Therefore, because of the reduced heat load, small fission product inventory and special attention by plant operators, testing at low power does not place the plant at greater risk and presents a significantly lesser risk than does full power operation.

Comment 4. The Chernobyl accident occurred while the reactor was at low power. Why does the NRC still say that the risk of low power testing is low?

Response. The reactor physics characteristics of U.S. light-water reactors are very different from those of the graphite-moderated RBMK type of reactor at Chernobyl. Positive void (and moderator temperature) coefficients, which played a central role in the accident at Chernobyl, are generally absent in U.S. reactors. Where they are present, they have a limited reactivity insertion potential, which precludes their causing any significant reactivity transient and power level increase. Substantial required shutdown reactivity margins in conjunction with fast automatic insertion of control rods on signals indicative of unsafe conditions provide protection against the occurrence of reactivity excursions, such as that which took place at Chernobyl, in commercial U.S. reactors. U.S. light-water reactors do not have the inherent potential to rapidly elevate their reactor power to levels at which plant risk becomes significant.

Additionally, the Chernobyl reactor operated at full power prior to its accident, therefore, the buildup of fission product inventory was much higher than the buildup of fission product inventory at U.S. reactor operating under a fuel loading or low power testing license.

Comment 5. Low power licensing fails the cost-benefit analysis required by NEPA.

Response. This issue falls outside the scope of the rulemaking which is only designed to address the requirements under the Atomic Energy Act for

emergency planning at fuel loading and low power. The establishment of these safety requirements does not have a significant environmental impact under NEPA. The question of the correct NEPA analysis to be done in support of a low power license for any specific facility is made by case-by-case determination, and is not the subject of this rulemaking.

Comment 6. A low power license should not be issued where it is not certain that a full power license will ever be granted. The Shoreham reactor was irradiated unnecessarily.

Response. This again is an issue that is not the subject of this generic rulemaking. In the past the Commission has addressed this issue in individual adjudicatory opinions, e.g. Long Island Lighting Company (Shoreham Nuclear Power Station), LLI-85-12, 21 NRC 1587 (1985), and does not believe that the issue warrants resolution generically by rulemaking.

Comment 7. The proposed rule states that the safety analysis performed in 1982 is still valid. After performing that analysis, the NRC decided to require that certain offsite aspects of emergency plans be in place prior to low power licensing. The NRC has given no rationale for changing the rule, while admitting that the previous analysis is valid.

Response. One reason for this rule change is to clarify language in the rule itself that can easily be read to suggest that no offsite emergency planning elements need to be reviewed prior to fuel loading or low power testing. The 1982 safety analysis supported the proposition that those offsite aspects of emergency planning which are pertinent to protecting persons onsite need be considered prior to low power. This rule change will incorporate this important safety consideration.

The provision in the 1982 rulemaking which is being reconsidered is the provision in the Statement of Considerations that systems for prompt notification of the public in the event of an accident should be in place and reviewed at low power. However, this change is consistent with the 1982 safety analysis. Plans will still be required for notification of offsite planning and response agencies so that these agencies and licensees may, as appropriate, keep the media and the public informed. But given the relatively low risk to the public from low power operation, a requirement for prompt notification of the public is far in excess of what is reasonably needed. Nothing in the 1982 rulemaking logically supports the contrary.

Comment 8. The NRC has previously stated that review of the licensee's onsite response mechanism will necessarily include aspects of some offsite elements. Why is the NRC changing this position?

Response. See the Response to Concern 7. The NRC is not changing its expert conclusion as to the lower level of risk from low power operation. However, this rulemaking is a more logical result of this expert conclusion than the positions stated in the 1982 Statement of Considerations.

Comment 9. The new rule does not address the risk of a terrorist attack or sabotage at low power.

Response. Prior to receiving a low power license a licensee must fully meet the requirements of 10 CFR Part 73.55. These requirements assure the full implementation of an acceptable security plan around a nuclear power

plant. These are the same security requirements that a licensee must meet prior to receiving a full power license. While the risk from terrorism or sabotage cannot be quantified, it is the Commission's judgment that compliance with § 73.55 will reasonably assure that the risk from terrorism or sabotage at low power is sufficiently low so as not to undercut the conclusion that low power safety risks to the offsite public are relatively low.

Comment 10. The risks of an accident at low power are not confined to those onsite. If an accident were to occur at low power, public panic could ensue.

Response. The Commission responded to a similar comment in promulgating the 1982 rule. See Issue 6, 47 Fed. Reg. at 30234. The Commission is not unmindful that, regardless of the objective lack of danger, members of the public may be made uneasy and could panic unnecessarily if an accident were to occur at low power. It was in response to this comment that the Commission agreed to review, and will continue to review, certain offsite notification elements of emergency plans prior to low power testing. In particular, prior to low power, means to keep state and local response organizations informed in the event of an onsite accident will be reviewed and approved. These organizations, through normal communication mechanisms, have the capability to inform the public, if needed, in order to avert panic. However, the Commission has found that immediate direct notification of the public called for by the language in the 1982 rule preamble is far in excess of what is necessary to keep the public informed.

Comment 11. The change in proposed Section 50.47(b)(6) to modify the requirement for provisions for monitoring offsite consequences from "in use" to "available" will create unacceptable delay in the identification of an actual or potential hazard to the public stemming from a radiological emergency.

Response. The final rule will retain the phrase "in use". The wording change in the proposed rule was not intended to change current NRC staff practice of reviewing licensee onsite plans to assure they meet the intent of 50.47(b)(6) and Planning Standard I of NUREG-0654 prior to issuance of an operating license limited to fuel loading and low power testing. While the safety evaluation which supports the elimination of the prompt public notification requirement for low power suggests that an offsite release is extremely unlikely, the Commission still considers it prudent to have release monitoring equipment in use onsite so that, at the minimum, the licensee is in a position to verify objectively that no release has occurred.

Comment 12. The original rule justified retention of emergency planning for research reactors, but not for commercial reactors, since research reactors were perceived to be located in areas of high population density. This contradicts the Commission's current posture that the relatively lower risks of low power testing justify elimination of offsite safety measures, since it concedes that there is an accident risk at low power serious enough that a research reactor (much smaller than a power reactor) needs a full emergency plan.

Response. The premise for the comment that research reactors with power levels approximating those of commercial nuclear power plants operating at 5% of full power are required to have approved offsite emergency plans is incorrect. Rather than requiring a "full emergency plan" for research reactors, the Commission's regulations (10 CFR Part 50, Appendix E, 10 CFR 50.47(c), 10 CFR 50.54(g) provide that emergency plan requirements will be determined on a case-by-case basis. In making this determination the guidance of NRC Regulatory Guide 2.6 and American National Standards Institute/American Nuclear Society 15.16 is used. In accordance with this guidance, and based on the relatively small risks posed by typical research reactors, (i.e., less than 50 mega watts) emergency planning involving offsite state and local plans and public notification have not been required. The guidance does, however, provide for consideration of more extensive planning, including all or a portion of the requirements listed in Section IV of 10 CFR Part 50 Appendix E for research reactors with power levels greater than 50 mega watts. This graded approach to required emergency planning is consistent with the current rule.

Comment 13. The Atomic Energy Act prohibits authorization of low power testing prior to completion of public hearings on all issues material to full power licensing.

Response. This comment is more properly addressed to Section 50.57(c), which provides for low power licenses and which is not being amended here. That section provides that a hearing is required prior to low power on those contentions "relevant to the activity to be authorized" -- that is, low power testing, as opposed to full power operation.

Comment 14. The proposed rule was designed to allow the Seabrook facility to receive its low power license. The Commission should promulgate a rule to promote the public health and safety and not one designed to license a specific facility. The issue should be addressed in the pending Seabrook adjudication, not in a rulemaking.

Response. In the proposed rule, the Commission stated that its attention was focused on the emergency planning requirements for low power testing because of an Appeal Board decision in the Seabrook operating license proceeding, ALAB-883. And, for the near term, the only reasonably foreseeable effect of the rule change will be on the Seabrook low power application. But this does not make the use of rulemaking inappropriate. As the Commission explained, the rule change was proposed to correct a possible discrepancy between the language of the 1982 rule and the language of the Statement of Considerations which potentially affects all license applicants, not just the applicants for Seabrook. Also, the questions involved in the proposed rule are generic safety questions and the Commission preferred to obtain (and, in fact, did obtain) a broad spectrum of public comment, rather than just the comments of the litigants in the Seabrook proceeding.

The Commission is free to address a generic issue generically, even if the rule change may currently apply only to one facility. See, e.g., Siegel v. Atomic Energy Commission, 400 F.2d 778 (D.C. Cir. 1968). Also see Securities and Exchange Commission v. Chenery, 332 U.S. 194, 202 (1947) (choice of how to proceed lies within the informed discretion of the agency).

Comment 15. Members of the public may need immediate medical attention in the event of an accident at low power. The new rule does not provide that arrangements for medical services will be in place for those offsite.

Response. The purpose for the requirement in 10 CFR 50.47(b)(12) that arrangements for medical services be made was described in the "Summary" section of the Commission's policy statement on medical services (51 FR 32904) dated September 17, 1986, as follows:

> "The Nuclear Regulatory Commission ("NRC: or "Commission") believes that 10 CFR 50.47(b)(12) ("planning standard (b)(12)") requires pre-accident arrangements for medical services (beyond the maintenance of a list of treatment facilities) for individuals who might be severely exposed to dangerous levels of offsite radiation following an accident at a nuclear power plant."

However, it is highly unlikely that members of the general public would be exposed to dangerous levels of radiation following an accident at low power. Therefore, the safety premise for the full power requirement that arrangements be made for medical services does not apply to fuel loading or low power testing.

Conclusion

As indicated in the responses to the comments, the Commission has decided to proceed with the proposed rule change with some clarifications and modifications. The rule reconciles a discrepancy between the language of the Statement of Considerations and the language of the Commission's 1982 emergency planning rule change and provides an interpretation of that rule which appears to be fully consistent with the Commission's goals and safety conclusions in 1982. The majority of the public, as expressed in the comments, supports the rule. The comments opposing the rule have given no sound reasons for the Commission to alter its basic course.

Finding of No Significant Environmental Impact: Availability

The Commission has determined that under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of 10 CFR Part 51, this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and therefore an environmental impact statement is not required. The environmental assessment and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, 1717 H Street, NW., Washington, DC 20555.

Paperwork Reduction Act Statement

This proposed rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget, approval number 3150-0011.

Regulatory Flexibility Certification

This proposed rule will not have a significant impact on a substantial number of small entitites. The proposed rule will reduce or at least postpone the burden on NRC licensees by reducing the process required before a low power license may be granted. Nuclear power plant licensees do not fall within the definition of small businesses in section 3 of the Small Business Act, 15 U.S.C. 632, the Small Business Size Standards of the Small Business Administration in 13 CFR Part 121, or the Commission's Size Standards published at 50 FR 50241 (Dec. 9, 1985). Therefore, in accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission hereby certifies that the proposed rule, if promulgated, will not have a significant economic impact on a substantial number of small entities and that, therefore, a regulatory flexibility analysis need not be prepared.

Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this rule, and therefore, that a backfit analysis is not required, because these amendments do not involve any provisions which would impose backfits as defined in 10 CFR 50.109(a)(1).

List of Subjects in 10 CFR Part 50

Antitrust, Classified information, Fire prevention, Intergovernmental relations, Nuclear power plants and reactors, penalty, Radiation protection, Reactor siting criteria, and Reporting requirements.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the Commission is adopting the following amendments to Part 50.

PART 50--DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

1. The authority citation for Part 50 continues to read as follows:

Authority: Secs. 102, 103, 104, 105, 161, 182, 183, 186, 189, 68 Stat. 936, 937, 938, 948, 963, 954, 955, 956, as amended, sec. 234, 83 Stat. 1244, as amended (42 U.S.C. 2132, 2133, 2134, 2135, 2201, 2232, 2233, 2236, 2239, 2282); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

Section 50.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851). Sections 50.10 also issued under secs. 101, 185, 68 Stat. 936, 955, as amended (42 U.S.C. 2131, 2235); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.23, 50.35, 50.55, and 50.56 also issued under sec. 185, 68 Stat. 955 (42 U.S.C. 2235). Sections 50.33a,

50.55a, and Appendix Q also issued under sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.34 and 50.54 also issued under sec. 204, 88 Stat. 1245 (42 U.S.C. 5844), sections 50.58, 50.91, and 50.92 also issued under Pub. L. 97-415, 96 Stat. 2073 (42 U.S.C. 2239). Section 50.78 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Sections 50.80-50.81 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2138). Appendix F also issued under sec. 187, 68 Stat. 955 (42 U.S.C. 2237).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273); §§ 50.10(a), (b), and (c), 50.44, 50.46, 50.48, 50.54, and 50.80(a) are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b); §§ 50.10(b) and (c), and 50.43 are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and §§ 50.9, 50.55(e), 50.59(b), 50.70, 50.71, 50.72, 50.73, and 50.78 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. In § 50.47, paragraph (d) is revised to read as follows:

§ 50.47 Emergency plans.

* * * * *

(d) Notwithstanding the requirements of paragraphs (a) and (b) of this section, and except as specified by this paragraph, no NRC or FEMA review, findings, or determinations concerning the state of offsite emergency preparedness or the adequacy of and capability to implement State and local or utility offsite emergency plans are required prior to issuance of an operating license authorizing only fuel loading or low power testing and training (up to 5% of the rated power). Insofar as emergency planning and preparedness requirements are concerned, a license authorizing fuel loading and/or low power testing and training may be issued after a finding is made by the NRC that the state of onsite emergency preparedness provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. The NRC will base this finding on its assessment of the applicant's onsite emergency plans against the pertinent standards in paragraph (b) of this section and Appendix E. Review of applicant's emergency

plans will include the following standards with offsite aspects:

(1) Arrangements for requesting and effectively using offsite assistance onsite have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned onsite response have been identified.

(2) Procedures have been established for licensee communications with State and local response organizations, including initial notification of the declaration of emergency and periodic provision of plant and response status reports.

(3) Provisions exist for prompt communications among principal response organizations to offsite emergency personnel who would be responding onsite.

(4) Adequate emergency facilities and equipment to support the emergency response onsite are provided and maintained.

(5) Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use onsite.

(6) Arrangements are made for medical services for contaminated and injured onsite individuals.

(7) Radiological emergency response training has been made available to those offsite who may be called to assist in an emergency onsite.

Dated at Rockville, MD, this ____ day of September, 1988.

For the Nuclear Regulatory Commission,

Samuel J. Chilk
Secretary of the Commission