NUCLEAR REGULATORY COMMISSION

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

IN THE MATTER OF:

237th GENERAL MEETING

Place - Washington, D. C.

Date - Thursday, 10 January 1980 Pages 1 - 142

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UNITED STATES NUCLEAR REGULATORY COMMISSION'S

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

Thursday, 10 January 1979

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards

237th GENERAL MEETING

Thursday, 10 January 1980

Room 1046, 1717 H Street, N.W.,
Washington, D.C.

The General Meeting was called to order, pursuant to notice, at 8:30 a.m., Dr. Milton Plesset presiding.

IN ATTENDANCE:

Dr. Milton S. Plesset, Chairman
Dr. J. Carson Mark, Vice Chairman
Dr. Stephen Lawroski
Dr. Max W. Carbon
Dr. Dade W. Moeller
Dr. Chester P. Seiss
Mr. William Mathis
Mr. Harold Etherington
Mr. Jesse Ebersole
Dr. Harold Lewis
Dr. Paul G. Shewmon
Dr. David Okrent
Mr. Jeremiah Ray
Prof. William Kerr

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P R O C E E D I N G S

DR. PLESSET: The meeting will now come to order.

This is the 237th meeting of the Advisory Committee on Reactor Safeguards. The items to be discussed during this meeting are included in the agenda, as published in the Federal Register, and include the preparation of the annual ACRS report on NRC safety research, a discussion of the NRC action plan to implement the recommendations of the President's Commission on TMI-2 accidents, implementation of NRC Bulletins and Orders resulting from the TMI-2 accident, and proposed revision of criteria for siting of nuclear facilities.

Copies of this notice are posted at the door.

This meeting is being conducted in accordance with the provisions of the Federal Advisory Committee Act and the Government in the Sunshine Act. Mr. Ray Fraley is the designated Federal Employee for this portion of the meeting.

May I remind everyone that for those portions of the meeting where a transcript is being kept it is particularly important that speakers identify themselves and speak with sufficient clarity and volume that they can be readily heard.

We have not received any written statements or requests for permission to make oral statements by members of the public with regard to this meeting.

The first item on today's agenda is a report on several miscellaneous items of interest to the Committee, and

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then we'll discuss the ACRS report on the NRC safety research program.

Well, with regard to the first item, miscellaneous, I'll make a brief inaugural address.

(Laughter.)

Now, what I wanted to point out to you is there's always a honeymoon period in a new administration --

(Laughter.)

-- which is initiated by a period in which the voters think they've made a great choice; a second period, a final one in which they realize that they're stuck.

(Laughter.)

So now the first period will be characterized by the members being very concise, brief, and to the point. This may last through the morning, but I don't know.

(Laughter.)

Now I have a very 'nother pleasant task. I should introduce it by telling you that Fraley, Lawroski and I were in Japan and we got very cultured while we were there, and learned about their program of having national treasures. Now a national treasure is not only an object, a building or a piece of art, but also includes persons. And we thought this was really a very fine thing. And so we have our first national treasure, and that is Harold Etherington.

(Laughter, cheers and applause.)

mmb3

We have some recognition of this, and Ray is going to give you a birthday greeting from the White House.

Would you give this to Harold Etherington?

You didn't know you were going to get this.

MR. ETHERINGTON: No, I sure didn't.

(Document handed to Mr. Etherington.)

DR. PLESSET: It's from Jimmy and Rosalyn Carter.

Now there is another new tradition, or a by-law practically, for the Subcommittee that when you get to be a national treasure you get treated to a dinner with the appropriate libations. And this is being scheduled for tonight, Harold, and you will be our honored guest. And you'll be glad to know, no speeches.

So that the members who will come to participate in this occasion will let Bob McKinney know, and we will plan to do that at the termination of the meeting.

Anyway, it's an effort on our part to express our appreciation and admiration, and we hope that you'll recognize this tradition because there are a couple of us who are trying to do the same thing.

(Laughter.)

Like me and Chet Siess.

Is that right, Chet, we're aiming for this too.

DR. SIESS: Oh, yes.

DR. PLESSET: This is not a birthday, this is a

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special occasion because we've got lots of nondescript birthdays but only a few special ones.

MR. FRALEY: In the Japanese tradition the honored guest receives the eyeball of the fish that's served, so we're trying to find a fish house.

DR. PLESSET: We haven't found it yet, Harold, so don't worry too much.

(Laughter.)

MR. ETHERINGTON: Thank you very much. I'm overwhelmed.

DR. PLESSET: Well, you shouldn't be.

MR. ETHERINGTON: I wish I knew who started this.

(Laughter.)

DR. PLESSET: Let me tell you, Harold, we're all responsible.

The other thing I should tell you is that Mr. Gossick is -- they're having a farewell party for him. And members of the Committee and our staff are invited to this farewell party which takes place Wednesday, January 30, six to eight p.m. That's at the Officers' Club, Naval Medical Center, Bethesda, so that you might make a note of that. Those of you who will be here would certainly want to take this opportunity to say farewell to Lee.

Now let me go to the next item, and that is a letter from Commissioner Ahearne regarding the Committee's letter

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regarding the TVA proposal.

MR. FRALEY: It looks like that. I guess it's a draft form from Mr. Savio.

(Displaying document.)

It looks like that.

DR. PLESSET: Well, it seems to boil down to his statement that the proposal is an interesting one. This bothers me because there's a famous physicist, when he found something was doing something altogether wrong and he didn't like it, he said 'That's very interesting'. It was Bohr. So when you hear -- Now he didn't say "very interesting", he said it was just "interesting", which isn't so bad. But it's getting there.

So that's what we got, the remark that it was an interesting proposal, and he has passed it along for consideration by the Staff, which may mean a kind of honorable interment, I don't know; but we'll have to wait and see.

It's a little disappointing, but we'll just wait.

DR. MARK: Ahearne's letter is actually to Friedman, by the way.

DR. PLESSET: Yes, right.

DR. MARK: To us he writes a different letter with two questions, one of which is easy and the other of which is essentially possible to answer.

DR. PLESSET: That's another letter.

mpb6

DR. MARK: Ahearne would be interested to know why we think there's any relevance between the risks from nuclear activities and other technologies.

DR. PLESSET: That was Gilinsky, I think, and we're going to come to that a little later in the agenda.

DR. MARK: I'm sorry.

DR. PLESSET: That's all right. It's a good point. We won't forget this communication from Commissioner Gilinsky, you can be certain.

MR. FRALEY: It is interesting that the Staff is proceeding, I guess, as fast as they can with the manpower they have available, and that Surry has a comparable proposal for operation of their plants -- I'm sorry, North Anna has submitted a comparable proposal. So apparently the utilities are getting up to speed. But it's not quite clear if the Commission is up to speed yet.

DR. PLESSET: I think that's all the miscellaneous comments. We have two minutes for the Committee to add any thoughts of its own.

If there aren't any, we'll try to -- Dave, did you want to make a comment, or are you just getting ready for your item here?

I think we're ready, Dave, to talk about the annual report by the Safety Research Program. Do you want to turn it over to Chet?

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DR. OKRENT: Yes.

DR. PLESSET: Chet, I guess the floor is yours.

(Whereupon, at 3:50 a.m., the General Meeting was recessed to a closed session.)

DR. PLESSET: I think this session is to go over the NRC Action Plan on the President's Commission recommendations. And Harold, I believe you have subcommittee comments to make.

MR. ETHERINGTON: Yes, the committee is going to hear about the plan from the staff, so I won't waste any of the committee's time on an overview of the plan itself. But I would like to mention a few reactions that the subcommittee has and if any of the subcommittee's understandings are in error, I would appreciate a correction from the staff.

The committee understands that the primary purpose of the document is to establish criteria and a plan to terminate the pause in licensing. Other purposes are to write a complete action plan in which essentially all of the post Three Mile Island recommendations are included and to establish priorities of funds and manpower.

The subcommittee felt that the plan is indeed comprehensive, but on the one hand it felt that a much shorter list would have been sufficient to define the objectives for terminating the licensing pause. And on the other hand, the subcommittee is concerned that preoccupation with the complete plan could lead to neglect of some of the pre Three Mile Island 2 accident safety concerns, some of which are longstanding and some of which are more

important than some of those within the plan. The subcommittee felt that it'll be quite important to establish priorities not only within each of the two groups but between the old and the new items as listed in the plan.

There were a couple of individual comments which I won't bother the committee with at this time. The subcommittee also felt that a change in the title of the report was in order. The report represents a compilation of recommendations from many sources, including some of the -- including most of those which originated within the Commission itself, within NRC itself.

It seemed inappropriate, therefore, to single out one commission report as the prime source of the recommendations, and I believe actually most of these recommendations did originate further back within the NRC, and were disclosed to the various investigative commissions. If I am wrong in that, I'd like to know.

So the committee felt it would be better not to mention any one source in the title of the report, but to list all of the sources, preferably in chronological order, as an appendix or as a flyleaf, but certainly not in the title. There may be reasons that we don't know about for not following this recommendation of the subcommittee. That's all I wanted to say, Mr. Chairman.

DR. PLESSET: Do other subcommittee --

MM

MR. ETHERINGTON: Wait a moment, please --

DR. PLESSET: -- members have --

MR. ETHERINGTON: Yes, Dr. Lewis was present. Mr. Mathis was present. And Terry, you were present, too, weren't you?

MR. RAY: NO.

MR. ETHERINGTON: Oh, you were not. That's right. And of course, we have our consultants, Mr. Michelson.

DR MARK: Do other subcommittee members or consultants have things they wish to add to Harold's comments?

MR. LEWIS: If I could add just one minor comment, I agree with everything Harold just said, and it's related to the absence of priorities both internally to the plan and also with respect to those items which existed before Three Mile Island. In fact, we were told that the plan specifically excluded, or would exclude those things which did not refer to the Three Mile Island accident, at least it said this on the priority page. This implies that it excludes everything that is specific to boiling water reactors, and we were told that that was the case on Monday, and if that's not true I'd like to know it.

The second point is the general -- the expected comment which is the absence of any quantitative basis for

choosing the specific items which appear on the list. For example -- just as a random example, not because -- there is on the list, and we'll find out something to design to reduce the number of challenges with the ECCS system. This is without any basis for believing that the number of challenges is now too high or just right or not high enough, for anything like that.

There's a lot of that throughout the plan, in which there is no real reason in my view -- and I'd love to be corrected on this -- for choosing one particular safety item over another particular safety item, and I hope we will perhaps hear some of that today.

DR. MARK: If those are all the comments, possibly Roger will move to address some of your questions. You were going to either handle or coordinate the discussion, Roger? It's yours.

MR. MATTSON: Let me address some of the questions raised by Mr. Etherington and Dr. Lewis, and then turn to an introduction to the way we would like to proceed this afternoon to manage ourselves through this big thick piece of paper in the next four hours.

First, Harold, you made the comment that although the plan is comprehensive and does address the question of ending the pause, the subject of what constitutes sufficient basis for ending the pause could have been addressed in

something much briefer.

I want to make sure that you are aware that you have a copy, somewhere in your documents, of a memorandum of last Saturday, January 5, from Lee Gossick to the commission entitled "TMI Action Plan Prerequisites for the Resumption of Licensing." It's a much shorter document which rearticulates the staff recommendation --

PROF. KERR: Roger, did you say last Saturday?

MR. MATTSON: Yes.

PROF. KERR: That means it became available to somebody?

MR. MATTSON: Publicly available yesterday.

PROF. KERR: So we probably don't have it.

MR. MATTSON: Staff told me you had copies. I brought copies down for you. If you don't they're being handed around.

MR. ETHERINGTON: We were not aware of that.

MR. MATTSON: Okay, I'm glad I brought it up.

DR. MATTSON: What I would hope is that later this afternoon, after we have marched through some of the technical details of the plan, we could return to the subject of the pause. And as you have occasion to glance at this document that's being handed around now between now and 4:30, 5:00 o'clock this afternoon, that will give you a chance to ask questions on it, I hope.

You said a shorter list would have defined the pause. There are in actuality three such shorter lists that will define the end of the pause, as stated in this memorandum. One is the list of requirements for operating reactors over and beyond those requirements already issued. Another would be the list of licensing requirements for near-term OLs. Such a list, with the concurrence of the EDO and the office directors, is appended to the thing that's just been handed to you. The third list that would be required to end the pause would be those things required for construction permits. And the fourth thing, as you will see in that memorandum, is an overall general endorsement of the plan, the Action Plan as a planning document by the Commission.

This question of how other things are treated outside of Three Mile Island things, Hal and Harold both brought up. The definition of the plan was originally that it include the agency's response to the President's Commission recommendations. That is, that it contain the program

description and, where possible, the licensing criteria necessary to implement the letter sent by the Nuclear Regulatory Commissioners to Frank Press in the White House on November the 9th. That was really the genesis of the title. I completely agree with you on the title.

The next draft or so on this plan will not only include what the Commission said in response to the request by Dr. Press for comments on the Kemeny Commission report, but it will also include further comments from the ACRS. It will also include a response to the Rogovin Special Inquiry. And it will be, in fact, much broader than the agency's response to the Kemeny Commission; although I might personally be sympathetic to worrying about the chronological order of when recommendations occurred, because I happen to think between the ACRS and the staff we had more specific and concrete proposals to solve problems than anybody so far earlier, I don't think we will go back and try to chronologically make them. Harold will probably retitle the report.

MR. ETHERINGTON: By chronologically, I only meant the chief documents, the NUREG numbers as they came out.

DR. MATTSON: Okay. Now, given that genesis or that definition of what was to be contained in the document, we too realize that there were many other things in the NRC agenda and our program that are important to safety, and it's really the comparison and correlation of this plan with the

existing agency operating plan that one gets into the question of priorities and relative priorities and adjustment of resources, resource assignments and what have you. Those activities are under way. They haven't advanced to a stage where you've seen them yet, but let me briefly describe them, and I think they'll give you a flavor for how the other things in the NRC program relate to this Action Plan for TMI things.

First, Hal, insofar as TMI learning relates to boiling water reactors, it's in the plan; insofar as boiling water reactor or other issues not directly related to TMI, they're not in the plan. Now let me generalize that and tell you about the rest of the stuff not in the plan.

The steering group asked the directors of the program offices in NRC several weeks ago to take their existing operating plan -- those are buzz words for us; that means their plan for the expenditure of their contractual and personnel resources in fiscal year 1980, including their supplemental budget for FY '80 which was associated with Three Mile Island things and their budget year planning for fiscal year 1981 -- in other words, they don't have an operating plan; all they have is a proposed budget for '81 -- and to start at the bottom of the priorities in those operating plans and identify candidate programs for deferral or delay --I guess those are the same, deferral or destruction -- that would equal in total the amount required to implement

the first draft of the Action Plan.

So, for example, the Office of Nuclear Reactor Regulation would start at the bottom of its priorities for fiscal year '80 and '81 and its existing planning documents, and identify functions in inverse order of priority for deferral or cancellation. And they would list enough of them to equal 150 man-years of work in FY 1980, 150 man-years being the total NRR has not budgeted for activities related to the TMI-2 Action Plan.

Now, the 150 is more than they're going to need, because we've been telling people consistently since we wrote this document that it was slanted too far to the present and not far enough into the future. That is, it jammed up at the front end. Most of the input to the document came from individual sources, and all of those sources assumed they could begin their work immediately. Not all of them can, because they relate one to another and there simply aren't enough people to begin them all immediately.

So we have been at the task of prioritizing and synthesizing and phasing this work over the past few weeks since it was written. Now, in the operating plan of the offices of the NRC are all of the other assignments, the unresolved safety issues, OL licensing, operating reactor work, research coordination, standards coordination, topical report reviews -- all of those things with which you'r

familiar which go on in the Office of Nuclear Reactor Regulation, for example.

They have various priorities assigned to them in a budgetary context, and you have talked to us enough down through the years that you basically know the operating reactors are the highest priority, and some of the generic activities are at the lowest end of the priority. However, unresolved safety issues are way up there high in the priority list, as are operating licenses, CP reviews; standard plant reviews are lower in the priority list.

So what will come to the steering group from the Office of Nuclear Reactor Regulation is a list of proposed candidates for reprogramming to free resources to work on TMI issues. Now, we will take those lists from the individual offices and compare them to a prioritized list of the actions in the Action Plan. We have such a list being generated now. It ranks the 245 items in the plan, one through 245, on the basis of some criteria, numerical criteria which were derived from the criteria used in the generic issues exercise of a year and a half or so ago and approved by the Commission on the 21st of last month for use in ranking the items in the Action Plan.

I'm not certain whether we've given you a copy of those. We gave a copy to the Subcommittee, I guess. If you're interested, make sure we get those around to you. It's

a copy of the weightings given according to various criteria for these.

DR. LEWIS: That is included in this package. This is the 10, 50, zero.

DR. MATTSON: Good. So we will have a prioritized list of TMI actions. The office directors will give us an inverted priority list of low-priority things in their existing program. We will mesh the two, exercise some judgment on which of the TMI issues are more important than existing ongoing things in the budget and reprogram, cause to be reprogrammed those existing things in the budget and the reassignment of the resources to TMI issues.

Now, to the extent that TMI issues in the plan are not more important than ongoing work in the operating plan, then we have two choices: we either defer the TMI issues out into fiscal years '81, '82, '83, or we approach the Congress for supplemental FY '81 funding. The chances of the latter approach are slim for two reasons. I think we just got a supplemental and the political chances of another are probably not high; and, two, there is quite a lot of people working on nuclear issues today, and it's difficult to find more to hire to work on them. It's not altogether clear that simply raising the budget gets things worked any faster.

In any event, we'll be going through this prioritizing

and phasing of actions in the plan and other actions unrelated to TMI.

I'll pause at that point and ask the Subcommittee, Harold and Hal, does that help you understand how the plan and the things not in the plan relate to one another, or are there other questions on that subject?

MR. ETHERINGTON: Yes, it helps quite a lot, Roger. I think I have some concern that there wouldn't be a tendency to raise areas in which there are a lot of people available.

DR. MATTSON: The question that occurs to me that might occur to you is, how can the ACRS comment on this thing, having never seen Harold's prioritizing and what is going to be done? That is a shortcoming, and it's purely a product of the speed with which this thing is moving. We're not trying to hide anything from you. We'll make those prioritizations available to you as they become available to us.

But the premise on which we're operating is that we're not putting anything in the plan that doesn't have to be done. In other words, we're going to do everything in the plan. It's a question of when. And if it shouldn't be done, then it shouldn't be in the plan. We're not going to use resources as an excuse to remove things from the plan. The only basis for removing something from this plan is that it's either not connected to Three Mile Island and the recommendations which arise from the accident at Three Mile Island or

it's not important to do.

MR. ETHERINGTON: Are you going to use the same priority system in the old items, Roger?

DR. MATTSON: Well, we are using a prioritization scheme today that's far from perfect, and it's not as good as the one used in the generic issues, although it derived from it. It's more approximate than what was done for the generic issues, and the difference is, in the generic issues they had some months to work and they had some resources available that we have neither of today. And they took the generic issues in the long list of 133 and actually did some event trees and some relative probabilistic assessments for some of those generic issues. We have not done that for the items in the TMI Action Plan.

Instead, we have exercised technical judgment on whether they have high, medium, or low risk reduction potential or safety improvement potential. Two reasons:

One, because we're moving more quickly than the first approach would allow; and, two, because the resources to do the more rigorous risk ranking are resources who are fully committed at this point to things like the Crystal River study, the IRAP program, and work we think is more important than a fine, precise, risk ranking of these issues. We're a little bit worried that, having generated this new system and then comparing this priority list with the generic issues

list, for example, when NRR comes to us and says, here's some candidates for cutting, one of the things they're going to say is: Don't solve any more generic issues today than the unresolved safety issues. As you solve unresolved safety issues, turn the resources on to a TMI issue; don't turn them on to something else on the list of 133. Only turn them on to the top 25 or whatever.

When we try to make comparisons like that, we will have issues ranked according to two different systems, and so there may come a day or a need in the future to do them with a common system. But the resources and the people who can do that, in our judgment, are working on more important things today than that fine-tuning of priorities. We think we can adjust the priorities and make the right decisions without doing that. It will be more judgmental than the state of the art would allow, but we don't think we will make large errors in doing it.

DR. LEWIS: One problem I have, Roger, with the priority ranking system that's being used here, at least the one that is in our handout, is that the safety significance is entirely judgmental, and I understand the limitation on resources that forces you to do that.

In the aftermath of TMI, we have noticed around town that people's judgment is remarkably influenced by the fact that TMI happened. That is, we're always more

influenced by the thing that just happened. Armies always fight the last war before they lose the first few battles and get off to the current wars. So that the 100, 50, and zero points allowed for this judgmental factor dramatically overwhelm everything else in the priority system, with the single exception that the rest of the priority system is devoted to emphasizing small, low-budget programs, which is a sign I don't understand anyway. I don't understand why a small program has higher priority than a large program per se, although that's the only other item really involved in your ranking system.

So I see it as a combination of straight judgment in the aftermath of Three Mile Island, plus a love of small programs and nothing else. And I have an uneasy feeling, if you will forgive me.

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gshMM

MR. MATTSON: Well, I wouldn't want you to think that that numerical system is the primary basis upon which decisions are going to be made.

If that numerical system happens to give -- and it was designed to -- what the collegial judgment of the staff and the ACRS and the commission believe is the right ordering of TMI issues, that is, you can pick any two, look at their relative position in the array from 1 to 245 and say, yes, one should be higher than the other, and if you pick enough samples like that so that you're comfortable, that whatever number system you used gave you that kind of an array, then you compare it to another array, an inverted array of existing programs. And you can similarly look at things in that inverted array and say, yes, they make sense.

Then the judgment comes in where you cause the mesh to occur.

MR. LEWIS: But, in fact, if you had done just what you said on the 230, whatever it is, items, I would feel more comfortable than I do with this pseudo-numerical rating scheme; that is, I have nothing against people's good judgment being exercised in terms of whether one item is more or less important than another.

In the absence of quantitative analysis, that's all we have. And I'm not knocking it, but that isn't quite what we have here.

gshMM

DR. MARK: Bill, you had a question.

PROF. KERR: Roger, I want to be sure that I know which draft we're talking about.

I have a draft dated December 11 by some sort of staff.

DR. MATTSON: That's the only draft.

PROF. KERR: And that draft seems to say on page 1, the last paragraph, and page 2, the first paragraph, that this action plan is tentative, intended to provide a basis for discussion, that discussions are intended to lead to changes in the plan, including a subtraction, addition or consolidation of tasks.

And there's quite a lot of discussion indicating that it's very tentative.

DR. MATTSON: That's true.

PROF. KERR: I just heard you say I thought that everyone of these 245 items is something that you will expect will be done.

DR. MATTSON: And if not, then it should be removed from the plan. By the time the plan is final, it will have some number, approximately 245 issues in it. Maybe 200, maybe 290.

When it is approved, they will all be done.

PROF. KERR: So you aren't talking about this draft; you're talking about some draft at sometime at which

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one decides --

DR. MATTSON: The goal is to produce an action plan, every item of which will be performed. And this is a draft of such a plan.

Okay, let me say briefly where we are on this plan as we understand it today, and how you fit into that.

The commission reviewed yesterday the list of near-term OL requirements, offered no decision on the near-term OL requirements, but generally understood, and I believe accepted, the premises stated by the staff on the end of the licensing pause; namely, a general approval of the final action plan, having changed it to reflect advice received and considerations made since this first draft, including the Rogovin Report, expected week after next, and including explicit approval in the plan of criteria for near-term OLs, operating reactors and CPs.

Our plan is to revise the action plan beginning next Monday and extending through approximately the end of the week, working with the task managers to reflect guidance received from you'all, from the commission, from our own work, synthesizing, arranging, distributing, better explaining, so on and so forth, where we can.

To have that draft, too, available internally to the staff at the time the Rogovin Report becomes available week after next.

gshMM

When the Rogovin Report becomes available, the steering group on the action plan will coordinate the NRC staff review of the Rogovin Report concentrating on a comparison of the report to the action plan, going to the commission in late January or early February with such a comparison and advising the commission on how the staff feels the action plan ought to be modified to reflect the special inquiry.

Having had that opportunity for feedback, we will prepare a third draft of the plan for discussion with the commission and decision by the commission in roughly mid-February.

That's a very tight schedule to accomplish some of the considerations that still have to go into it, but that's our goal.

We talked this morning with people from the Atomic Industrial Forum and from the nuclear safety analysis center and agreed to sit down with them and talk about the plan on two opportunities in the next few weeks.

The specific dates escape my mind.

We also, at the request of the commission, will be taking the list of near-term OL requirements out into the field with some special groups of people involving inspectors, reviewers, project managers, and some task managers and steering group members between the 21st and

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29th of January to talk to operating crews, plant engineering organizations and plant management organizations about the list of near-term OL criteria to discuss their potential effect on safety to discover whether there are any actions in there that are counter to safety instead of their intended contributions to safety.

It won't be a resource discussion or a practicality discussion; it will be primarily a safety discussion.

The results of that work, I think we're going to look at four operating plants and four near-term OLs -- will be reported back to the commission in early February.

Other than those activities, I think the ACRS review is the only other thing we have ongoing.

I would propose at this juncture, unless you have questions on the schedule and the approach that's being taken, that we ask the members of the steering group who are chapter heads for each of the four chapters of the action plan, to give the full committee a brief summary with the subcommittee. We march through area-by-area with each of the task managers.

I don't think this afternoon's time will allow that.

But as you raise questions, the task managers will address the questions in their area of responsibility.

gshMM

So we'll use the chapter heads to try and speed us along and use the task managers to respond to the technical questions.

DR. PLESSET: Bill?

PROF. KERR: Insofar as you can, what -- if you could put yourself in the shoes of the committee, what sort of comments would you make on this draft?

Are you -- I know the committee will make whatever comments it has to make. But are you looking for something general that says either this is extremely good or it's no damn good at all, or are you looking at detailed comments on individual task action plans?

As you see it, what advice is likely to be most useful to you?

DR. MATTSON: Well, if it's no damn good at all, I think the commission would like to know that. The kinds of things I think the commission would be most interested in knowing are your comments, your advice, reasonably reflected by this plan, the kinds of things that were important to you since Three Mile that you have talked about, that you've written letters on. Are they given the right weight? They have been given the kind of consideration you expected them to be given in the context of all of the things that are being done on Three Mile.

You offered some advice on NUREG 0585. That

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advice was received after this document was written, so you can't really comment on how well the most recent advice has been factored in.

It is our intent to factor that advice into the report.

But you can, I think, give some -- offer some judgment as to whether the thi that were near and dear to you came out in here the way you would have expected them to be treated.

I think you also need to give some thought to whether the basic approach in here is right. The basic approach is not summarized anywhere, but it's basica ly, do some interim things while you are thinking about and studying and deciding how to do some longer range things. And make a number of those interim things requirements for licensing.

That -- you do that at the expense of how soon the longer-range things can be done and at the risk of doing some things in the short-term that are counter-productive.

We think that's the right way to proceed and we think we can strike a balance and reduce the risk of doing counter-productive things.

You may not agree with that. I think you ought to look at it and that would lead you, I think, to some specific areas.

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For example, in control rooms. Is the committee's judgment in control room design that the problem is so bad, that it makes no sense to do anything interim, and instead, to study the heck out of the problem and decide what to do big and long-term as soon as possible and go do it?

Or is it a problem that's amenable to a gradual wearing away of the solution; that is, do a piece now and a piece next year and a piece the following year, and give years from now, you'll have the whole thing solved.

The same kind of thing with emergency procedures. Should we jump in now and try to develop a way to completely revise all emergency procedures?

I think the general feeling in the industry and the government on emergency procedures is that a few years from now, we think we ought to rewrite them all to symptom-oriented procedures.

We don't know how to get from here to there, so that the plan has some intermediate steps to get us into an improved state of knowledge to do that.

I don't know if the committee wants to sort through all of those things or only ones who are pet peeve or special significance to you.

But I think that's the kind of comment that the commission is interested in.

I would also think that they would be interested

in the policy comments of the sort, is setting of specific requirements without rearticulation of a safety policy or a safety goal good sense or bad sense or risky, and if risky, what can you do to guard against it?

Should resumption of licensing depend upon approval of an overall planning document related to Three Mile Island or only upon the articulation of specific near-term operating license criteria?

We think it depends on both. You may disagree with us. I'm sure the commission would want to know answers to questions like that if you had advice to offer.

DR. PLESSET: Bill?

PROF. KERR: I certainly have not yet read every page of this document, but I read quite a lot of it and it is referred to as a plan.

My problem was in trying to find the plan. What I saw was a very large collection of suggestions and some of the things you've said now make it seem more like a plan, although I didn't find that in here.

Perhaps I overlooked it.

What I kept looking for was a plan which told me, given these individual tasks, what is a plan for integrating them in some fashion to take care of some problem, a problem I assume, being to reduce risk?

And I have difficulty commenting on that plan

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because I don't know what the plan is.

I have a very good idea that a lot of people have done a lot of work and have come up with suggestions on specific items. But I don't see the integration of this into a plan which says, here's what we're going to do first and here's what we're going to do next and here's how we are certain that changing this widget doesn't interfere with this gadget over here.

That, you know -- this sounds critical and I don't mean it to be because you've had a very short amount of time and I know what I have asked for is difficult to come by.

But I haven't seen a plan, and I therefore have difficulty commenting on the plan. Either I have somehow failed to apprehend it, which is probably the case.

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MR. MATTSON: Well, all I can say to help you is: the kind of comment that you offer on it is the kind of comment, the kind of thinking that we are bringing to it. Through discussions with you, through discussions with other people, we learn better what its weaknesses are, what things can be combined, where things should be phased, and I think that's planning. If what you come out with when you're done is not a plan but a list of milestones, then I guess it's a semantics question you are raising.

Changing a list of milestones to reflect when tasks ought to be accomplished to improve safety in response to -- and these aren't suggestions, Bill, these are more than that. These are recommendations from a presidential commission. They reflect decisions taken by the President of the United States. They reflect decisions taken by the Nuclear Regulatory Commission. They reflect advice deliberately and formally offered by this committee.

They are more than suggestions, so the staging and arranging and relating of these recommendations is planning, not something less than that.

I don't know how to answer your question other than that. It's a plan; it's a series of milestones; it's a statement of tasks. And what we are doing in commenting on it and changing it is planning.

DR. MARK: If one accepts Bill's criticism as a

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natural frame of mind to be in from looking at the first draft, would it be your supposition that by the time you have got the second draft it will be a little more evident that this is an order of things to go into the plan?

MR. MATTSON: Only by comparing draft two to draft one. If someone were to come off an island and look at draft two, never having seen draft one, I think he would be making the same kind of comments and draft three and draft four and draft five.

Only by experiencing the planning, the arranging, the thinking and decision-making that goes into changes do you understand it to be a plan.

DR. MARK: Dade?

MR. MOELLER: Following up on what Dr. Kerr has said, it seems to me it is more a check list of items that should be considered in looking at the future or into the future. One question I had, some of these things can be implemented by administrative action, or whatever. And others are going to require some research to back them up. Or to develop data so that you'll know the best thing to do.

Will you be separating the items into those that -- where sufficient data to follow through are available and those where such data are not yet available?

MR. MATTSON: Well, to the extent -- I think the

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plan already does that. Where the plan says "issue criteria in the next year," and doesn't say "study first," it implies sufficient data are available. There are places like that. There are other places in the plan where you will see preliminary steps of research or rulemaking or study or ANSI standards development, or what-have-you, leading to the promulgation of criteria several years in the future.

And where we have failed to realize that there is data necessary before a step can be taken, then that's a weakness of the plan and ought to be fixed.

On the other hand, where we say we are going to study some more before we take an action, if somebody thinks there is sufficient data now available to take the action, then the study is guilding the lily. That's also a weakness of the plan.

And there are places where they're going in both directions.

DR. MARK: Are there futher questions?

DR. OKRENT: Will the chairman or the subcommittee chairman advise me what he thinks the committee is expected to do, or expects to do, at this meeting, with regard to the action plan?

PROF. KERR: It would be helpful to me to have that advice, too.

DR. OKRENT: In other words, is this intended to

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be an information meeting where individual members may throw garlands, darts, or whatever, at the plan, but the committee does not expect to write a letter, perhaps because there's another draft coming, or for whatever reason, or is there some expectation that some kind of written committee comment will be prepared at this meeting? And if so, what type of comment? This will affect how I respond to the presentation, whether I stay awake or --

(Laughter.)

DR. PLESSET: Let me propose for a moment -- I didn't think Dr. Kerr got an answer. Maybe he feels that he was satisfied with regard to the general flavor of the document.

PROF. KERR: Well, I said it didn't seem like a plan, and I was told that it was a plan. I don't know how else to counter that. I was not told that it seemed to be like a plan, I was just told that it was a plan. And if it is, I guess it is, by definition.

DR. PLESSET: The other question that Dade brought up makes me wonder are there any -- is there any clear statement of priorities in the plan, and how these priorities relate to the other priorities within NRC.

Has that been discussed?

DR. MARK: No. Roger said that there is intention to go over this for prioritization. Also, otherwise

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schedule work, and that process, I guess, has a couple of weeks to run. That was in the introduction.

DR. PLESSET: What are we supposed to do at this time?

DR. MARK: I don't know. Harold has a notion that he can advance on that.

MR. ETHERINGTON: I thought the letter was wanted at this time, I may be wrong there. It would be very difficult for the committee to write on priorities without having seen the job which we don't yet have. If the letter is requiring something very general, then I would much prefer to wait until we have made a final review. I think we should ask the staff whether the letter is needed at this time.

MR. MATTSON: I think the letter is needed, and I think it's quite clear that we expect it.

MR. ETHERINGTON: You say it is needed?

MR. MATTSON: I think the letter transmitting this report asks for that.

MR. ETHERINGTON: We can certainly write a letter recognizing the priorities are not yet available, and that kind of thing.

MR. MATTSON: The difficulty if you don't write a letter is that I would expect the commission to act on the plan before you could write one, after your next meeting.

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That's their instructions to us.

DR. OKRENT: I'm sorry, I am not quite sure what it is you're telling us. We should write the letter regarding what aspects of the plan? You told us that not --

MR. MATTSON: I'm hesitating, Dave, because every time I have tried to tell the committee what kind of a letter to write, I lost.

DR. OKRENT: You said a letter is needed. You have already told us the priorities are not here, and in fact, it doesn't cover many ACRS recommendations which were made at the December meeting. And I don't know what else is not included in it. But I assume there are other things, also. So I would like to know, if you think a letter is needed from the committee at this meeting, what aspects of the plan it should deal with, and why.

MR. MATTSON: I think you should deal with both the general and the specific. The general in the sense of how the plan is being used, what it has attempted to incorporate in it, how people are going about developing it, and what they say about how they're going to use it.

Specifically, I think you'd want to talk about the things that are of interest to you. There are some things in here that are clearly things that the ACRS has not taken an interest in in the past and it hasn't probably any in today. There are others that I'm sure you would want to

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comment on, as to whether they do what you thought you were being told was going to be done since the accident, things like IRAP, things like systems interaction, things like human factors, the role of the ACRS are specific elements of the plan and are especially interesting to your historical role. I would think you would want to comment on how those things were being approached.

PROF. KERR: If we have recommended them, then we either say we changed our minds or we still would recommend them, sort of, because the detail of implementation given in this and how it fits into the overall abilities --

MR. MATTSON: That's just not right. Let me give you some examples. Let's take your letter of August 14th, I believe is the date. In the letter of August 14th, you listed -- let me guess half a dozen specific events or failure sequences or -- call them what you will -- unapproached generic questions, and said, Gee, we'd like to see studies to those things. You'll find a hard time finding any of those specifically called out in this action plan. The reason? The action plan takes from a more general perspective an approach to system reliability assessment and systems interaction than attempting to delineate a number of specific component or hardware failure sequences.

The intent is that our approach is better than

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your approach. Do you agree with that or don't you agree with that? Do you want those specific studies called out in those more general approaches that we have called out, or don't you?

PROF. KERR: So you're suggesting that we comment on the individual items, but not so much on the plan portion. We say we think this item is valuable because it will accomplish something worthwhile or because it responds to a need, or something of that kind. So in a sense, there would be a catalog of items. We would comment on the individual items. That's a certain thing that you might expect.

MR. MATTSON: To the extent you have something to say on the individual items, it wouldn't be worth your time to go through them one by one and say you agree with them. I don't think that's worth much.

DR. MARK: Harold, you said you thought you could write a letter. It seems to me one can say that more or less in an unqualified way.

MR. ETHERINGTON: The thing is, Roger wants the specific input. This might be a little bit difficult.

MR. MATTSON: Let me try to say it another way and see if it helps.

MR. ETHERINGTON: If you are really concerned that the Committee has no basic objection to the plan -- is that really what you want, to be sure that the Committee is in general agreement with the plan?

MR. MATTSON: The goal is to do the right thing after Three Mile Island, change the requirements, to change the procedures, to carry out the reforms that are necessary as a result of what was learned from Three Mile Island, to do so as expeditiously as we can in the interest of the national energy supply and the need to be fair regulators in addition to firm regulators. That's what we're trying to produce.

The way we have chosen to do that is a planning vehicle called this Action Plan, which had its genesis in the Presidential Commission and the NRC response to the

Presidential Commission. The plan is the vehicle that's going to be used to make those decisions.

To the extent the Committee wants to participate in those decisions and make them the right decisions, that's the extent to which you ought to be involved in commenting on the plan.

DR. OKRENT: Roger, the plan was not quite ready for the December meeting. And now for the January meeting the priorities are not quite ready, nor do we have ready how you have incorporated the comments from the December meeting, although that's almost a month into the past, which is a long time so far as the total time and this Action Plan is concerned.

So I must confess, if I were going to start drafting a letter -- which, fortunately, I don't have to, since we have another Subcommittee Chairman -- I probably would start out saying just those things: there are no priorities, we have no idea how the staff is going to respond to a very considerable number of Committee recommendations in the December letter. So in those areas we will hold, offer no comments. We will try to look at some of the other areas.

I would find it hard to know how else to proceed with regard to specifics now. Maybe we could say the general approach, with whatever it is, if you could tell us a little bit more in the beginning of your philosophy, or something of this sort. That kind of a comment you might be able to get.

Do you see what I'm saying?

MR. MATTSON: I don't see how we can expect you to comment on priorities.

DR. OKRENT: Okay.

DR. LEWIS: In a sense, you're saying all we can do is that we are delighted the staff is responding to the Three Mile Accident, and of course we are. But you didn't say anything more than that.

DR. OKRENT: I asked the question of the Chairman originally because I anticipated a problem in the Committee writing a letter at this meeting after I heard of the status. The discussion at the last meeting was we would have the second draft by now, which might have made it more timely, let's say, for us to be trying to comment.

Well, I have my question answered.

DR. MARK: I think probably our best move would be to hear from the task managers of the various sections. From those there might be the basis or a fairly obvious basis for additional comments. At this point all we can do would be to comment on the approach, probably, if we were to write a letter right now, which I don't believe we intend.

DR. MOELLER: One quick comment. I commented earlier on the research implications of the Action Plan, and I want to repeat what troubles me, say, as a Committee member. We are preparing a review of all or most of the NRC research at

this meeting and hope to get it out by the next meeting. Well, a lot of that research would support the Action Plan. Some of it perhaps doesn't have too close a relation to the Action Plan.

So I would think, if we were doing our task in a thorough manner, we then would look at the whole review of NRC research in the light of this plan. But first we would have to decide what parts we liked of the plan, and then we would say: Well, we want such and such research emphasized because it's important and crucial to this plan. Now, that would be an enormous undertaking, and I just simply want to mention that it's one of the things that troubles me.

DR. MARK: I am also wondering if it is not possible that, just because of the point you mentioned, that the research plan drawn up last, whenever, May, may not find itself under some types of change by the demands of the Action Planners saying, do this instead of that.

MR. SCROGGIN: Carson, let me comment on that a little bit. The research plan that you have been discussing and the Subcommittee has and the full Committee in the last few days, has only reflected a significant reorientation and reprogramming in view of Lessons Learned in TMI. In an exercise done less than a month ago, a few weeks ago, where the offices looked specifically at this draft of the Action Plan to determine, in effect, what items were not specifically

budgeted for in resources, primarily contract dollars, the difference really, in research, was on the orders of a few million dollars in fiscal '80 and, let's say, five million or so in fiscal '81. And those numbers, in being sharpened, will probably more likely decrease than increase.

So while there is certainly a thought that this Action Plan may indeed require some additional reprogramming or reorientation of the research program. it would not be significant in light of the total program.

DR. MARK: Are there further comments before we proceed?

DR. OKRENT: Yes. I think that comment is only partly responsive to the point made by Dr. Moeller. It may well be that as you try to develop the information on the schedules indicated in this Action Plan, that whoever it is that has the responsibility for each section is going to say: I must have this done, I must have that done; and that within the various decision units in research there will be major shifts in what is really done compared to what, let's say, it was said would be done in general terms. That may be good or it may in fact end up having a lot of work done -- for example, there's the hassle about do you turn pumps off or on in a small break. I can foresee vast efforts in order to get this resolved.

It might be that those millions of dollars would in

fact have a greater potential for protecting the public health and safety in some other area. But, because the Action Plan said we have got to do something by whatever is the date, the man responsible for this has said: Look, whatever it takes, it takes.

These are not things that have no influence on the public health and safety.

DR. MARK: Are there further comments?

I'm prepared to agree with what you say in a sense being true. But I don't think that we can look at it in any palpable form today.

MR. O'REILLY: My name is Jim O'Reilly. I'm a member of the steering group and I'm the Director of Region II, also. I'm the manager for chapter one. And based on the discussion this morning, I don't know exactly where to start.

We have here with us today -- we have, if you look at the index, we have -- chapter one's subject is operational safety, and it covers seven areas. And we have task managers assigned to each area, and they are ready here to answer any specific questions, or I can. I can sort of read through each item, if you'd like, not read it, but just say a few words about each item. And to say that would probably -- without responding to your questions, would probably take almost a half an hour. Or we could identify -- if you could identify areas that you would like several of our task managers

to discuss or expand upon. So I would like really to have some response, Mr. Chairman.

If you have any questions on chapter one, we can perhaps focus our presentation better.

DR. SHEWMON: Since I haven't read this, let me ask one question, if this is appropriate. One of the questions that was talked about some was not -- was whether or not there could come out of this training or licensing practices for people who aren't operators. One group you hear of would be the people who do instrumentation work, since drift in instruments may be mis-set instruments. Maintenance people have set off safety systems more often than actual events, or something like that.

A different aspect of it is, I don't know who is responsible for turning valves which got that bed pump back in the wrong place, whether that was an operator or someplace else. But in general, I'd be interested in your comments about where you come out on other training or training programs for specialties other than operators.

MR. O'REILLY: Don Skovholt is our test engineer, and he will respond to it.

MR. SKOVHOLT: That question is an integral part of the Action Plan, and it's 1A2, I believe, in the document. And we are going about it, really, in a two-phased effort.

First of all, on a very short-term basis, all

licensees will be directed to review their training requirements for other categories of personnel. The suggested preferred method is by doing a position task analysis and then defining training requirements associated with the results of said analysis.

They are going to be told to do this on a fairly short time scale, and we will audit this through our inspection process to see that, in the absence of highly definitive criteria, that something that appears to be meaningful is being done.

On a longer-term basis, we want to develop a very definitive criteria for the training of these people and the possibility of licensing these people as well. We have some contractual studies already under way which will address this question. And we are also keeping in very close contact with the Institute for Nuclear Power Operations, which is really just getting off the ground now, but certainly intends to play a very major role in defining training requirements and instructor certification for plant personnel.

DR. SHEWMON: If what you're saying -- if it's responsive to what I said, in looking at the Objective 1A2, it talks about operators, senior operators, and supervisors, who I'm not talking about, and other personnel in the operations organizations, which maybe speaks to what I asked about.

Did you define who they are? If somebody has maintenance and instrumentation and control systems, is he an operating organization personnel?

MR. SKOVHOLT: I'm sorry, I may have given you the wrong reference.

DR. SHEWMON: My co-worker says if I get to the last page, 1A24, maintenance and technical personnel come under there.

MR. SKOVHOLT: Okay. The 1A24 is the first aspect of the program that I mentioned on the re-auditing and redefining of training requirements. 1A3-5 addresses specifically the question of possibility of licensing additional operations personnel, which, as the text indicates -- and this is page 1A3-5 of the writeup -- the study will include consideration of managers, engineers, auxiliary operators, maintenance personnel, technicians, and shift technical advisers.

DR. MARK: Dave?

DR. OKRENT: Let me choose a topic at random. There's one called 1F, quality assurance. It says: Objective: Improve the quality assurance program for design, construction and operation, to provide greater assurance that all plant design, construction, and operational activities are properly conducted.

Then it has some NRC actions: One, develop a QA

list; two, develop criteria. Then, under this development of criteria, it says: Description: NRR, IE and SD -- that's what, Standards -- develop new or revised acceptance criteria for various aspects of quality assurance for design, construction and operation.

When I look at this, it seems to me that the question of how to get the necessary quality assurance program for design has been decided already, that you are able to have NRR, IE and SD write something. I myself would assume that there are some major philosophical considerations as to how is the better or best way to do this. I don't see in this part of the Action Plan anyplace where one will write down what are the alternatives that might be followed, what's been deficient with what we've been doing, how do we judge whether the general path that we have been following is one we should stay on.

You are, as I see it, going to follow the general path with some kind of, I don't know, maybe requirements for this much more auditing or whatever. But it seems to me that the approach itself is one that pre-assumes where the answer lies. Am I wrong?

MR. O'REILLY: No, I believe that's true. We're going to do a number of things that we believe Three Mile Island highlighted to us, not just that but other things. Tied in with this is an approach for us to consider getting

more involved in the area of quality assurance and with nuclear steam suppliers. We have not done that too much. We've done a little bit in our relatively modest vendor program. We are planning to consider whether or not we might even license these nuclear steam suppliers or architect-engineers. And of course, to do this would get us more, I believe, involved in reviewing the true implementation of I think what we have carefully considered in the past, our existing requirements, but applying them more vigorously; and, of course, understanding to a much higher degree what actually was taking place.

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DR. OKRENT: I would say myself that design errors represent an area that occurs in NRC system quality assurance and is weak in picking up, the industry is weak in picking up -- that maybe one has to rethink whatever it is that one has been doing. It's just that we need to do more of it or whatever or whether something different is relevant here.

In looking at this plan, I can't find any intent to reexamine this question. I don't know. Maybe you have examined it, and somewhere you have got a White Paper, that we have looked at all the ways one might tackle the question of design errors, and we know what it is we need to do. All we need to do is write these criteria.

If you have that paper, I would like to see it.

MR. O'REILLY: Maybe, Mr. Reinmuth and Scroggins would like to say something on that. I would like to say a couple of words, though.

I will say that Research is doing some work in the area in regards to doing more independent analysis on our own. That's one of the findings we have been talking about.

We are, besides considering licensing nuclear steam suppliers, we say in there that we are going to consider placing an equivalent type resident inspector or inspectors at some of these plants to get a better handle on the factors involved in design -- on reviewing designs.

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I think that will help us and keep us better calibrated.

DR. OKRENT: And you didn't mention, interestingly enough, architect engineers. You said NSSS suppliers.

MR. O'REILLY: I meant to say architect engineers. I thought I did say that.

DR. OKRENT: If you did, I missed it. I thought you said license --

DR. LAWROSKI: That's what I thought I heard, too.

DR. OKRENT: Well, let me just leave it at the moment, unless you have more, as a thing I'm unable to get a handle on from what I read, to know from what's here whether in fact this is what I think the NRC staff should be doing.

If I were a Commissioner, I wouldn't know how to say, "I approve this plan; this is just what the NRC staff should be doing in this area." I don't know how you, in fact, can ask the Commission to approve this, frankly, because of what I consider to be the incomplete treatment of an important question.

MR. O'REILLY: Well, in response to the latter part of your statement here, Dr. Okrent, the revised Action Plan in here will describe how we will do these types of things, and I would expect this plant to show that we will provide the Commission a staff paper that will identify the pros and cons and how, and then we would implement that type

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of decision.

PROFESSOR KERR: I must say I don't understand that comment, unless you are saying that you wouldn't expect the Commission to approve what Dr. Okrent is talking about. You would rather expect them to approve something else which you haven't yet prepared. Is that what you're saying?

MR. O'REILLY: I am saying that on many items in here -- that would be new concepts and new approaches that are not immediately effective types of items -- we are prepared and will indicate in the next draft of the Action Plan that we would intend -- we would plan, we would say that in the action plan, to provide the Commission with a staff paper on this issue and identify the pros and cons, and they would uniquely decide some of those.

PROFESSOR KERR: So they wouldn't decide on the basis of this draft, but rather they would decide on the basis of another draft.

MR. O'REILLY: That is correct on the big ticket items.

MR. MATTSON: What he is saying is, the plan in many of the major long-term program areas of which this is one is being revised to say -- to reflect not a decision in the Action Plan itself, but a schedule and a set of considerations and a plan for addressing those specific areas in the future one at a time.

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This one on quality assurance won't say, "Do something specific about quality assurance." It will say instead by the time it's approved, "Study quality assurance; consider whether to do things this way; consider the alternatives; develop the pros and cons; report back to the Commission by such-and-such a date."

DR. OKRENT: Right now, this one says "complete proposed Appendix B of 10 CFR 50 by January, 1981; issue effective rule by 1981." That's not that far away.

MR. MATTSON: But the information presented here, as you have already said, is insufficient to reach a decision to move in that direction on that time scale.

DR. OKRENT: Unless you have your path all laid out and there is some --

MR. MATTSON: The answer is, there isn't such a document, and the first step will be to prepare such a document, get decisions on it, and then move to not make such decisions in the Action Plan. But in the Action Plan context, you only decided that, yes, that is a subject worthy of consideration on the merits of Three Mile Island, and we will consider it, and having considered when we will have resources to consider it, the schedule in the future looks something like the following.

DR. OKRENT: Then on IF, I should assume for the moment that where you have a schedule under this item, I

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should ignore it?

DR. SHEWMON: Maybe you should use a grain of salt.

MR. MATTSON: Considering these items one at a time, at the time we put the plan together, that looked like a reasonable schedule. Having looked at the totality of the resources, having looked at relative importance of some of these things, having understood from the Commission that they do not intend to decide these big ticket items by one fell swoop approval of the whole Action Plan, no, I don't think that date's worth a diddle anymore. I think it's going to change.

DR. OKRENT: If I can offer one more comment and then I will give the floor to somebody else to pick up his subject, under licensee actions in this general item, it doesn't, unless I missed it -- it doesn't ask licensees to come in with a proposal for some improved way of dealing with design errors.

I must say, if I were developing an Action Plan, at least I would put that down on my list and say it's one of the things I would initiate. Now, I might or might not be optimistic, depending on the area and so forth. In this area, it seems to me, there should be at least some probability larger than infinitessimal that the industry might come in with a proposal. It's to their advantage to

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start thinking seriously about it.

MR. MATTSON: Good suggestion. Thank you.

DR. MARK: Bill?

PROFESSOR KERR: I've been talking a good bit. I don't want to preempt other people. I do have a question, but --

DR. SHEWMON: Let me go back for one minute of clarification here. We talk about tax loopholes -- or will in a few months -- and I guess I'm not sure what a design error is, and I wonder if a design error depends on one perception, or if you could give us -- is it someplace where somebody didn't meet codes they thought they were going to meet, in which with the benefit of hindsight they should have done it differently? Or we aren't talking about construction errors where they didn't meet design?

DR. OKRENT: Let me give you one that is well-known in the design of the Trojan plant. There was a design error in the seismic design with the regard to the way the control room building was connected to the reactor building or some other building, and there was just actually an error made in the design.

DR. SHEWMON: That error was defined by not being accepted codes?

DR. OKRENT: Well, in fact, that's one way of putting it. Another way was, it didn't have the proper

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resistance to earthquakes.

MR. EBERSOLE: How about the containment perk valves?

DR. SHEWMON: Okay. Thank you.

DR. OKRENT: Is that a fair thing?

DR. SHEWMON: Thank you.

MR. MATTSON: Would fuel densification be a design error?

MR. RAY: Dr. Mattson, a little bit earlier in response to questions -- some of Bill Kerr's and some of Dave Okrent's -- when the question of whether or not we should attempt to write a letter at this time, you indicated it was desirable because in the meanwhile the Commission may implement some of this plan. Is that right?

Well, I've only had time to scan this letter that you passed out today, dated January 5, and the last paragraph on page two describes rather graphically the deficiencies of this plan or this draft as it exists at this stage. It also says we are not recommending approval of the existing draft Action Plan.

Now would the Commission go ahead and implement a plan on which you are not asking approval at this time?

MR. MATTSON: Jerry, I was trying to say that if the Committee doesn't say something at this meeting, by the time of its next meeting, the Commission may have acted, but

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not on this draft, between now and the next meeting.

I hesitate to say this because I said there'd be one more draft before this meeting, but there are on my blackboard at the moment two more drafts of this Action Plan before you ever meet again.

MR. RAY: You have the courage in this letter to point out that the next draft will probably be a month after receipt of the special inquiry report.

MR. MATTSON: That's the next draft for the Commission. That's right.

MR. RAY: Do you have that report now?

MR. MATTSON: No.

MR. RAY: I can't see why the Commission would have something to approve and act on in the absence of our letter between now and sometime in February -- in other words, after our February meeting.

Furthermore, you go on to indicate what this new draft will due. In addition, you say at that time we expect to furnish an analysis of the resource and programmatic implications of the plan, including identification of necessary reprogramming, future budget requirements, and effect on present programs, et cetera, et cetera.

It seems to me that that phase of your drafts of Action Plans is the phase at which you might expect us to write a letter. I think you would give us things to

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cogitate on and chew on if you did that, and this draft certainly is not in that stage. Bill?

PROFESSOR KERR: On Chapter 1, the first — I have a couple of questions. I'm not sure if they are related, but they might be, so I'll ask them both.

The first sentence makes the statement that there are two dominant themes in the chapter. Namely, one of them is "improve and protect management competence of all licensees." Now, the Kemeny Commission report said that they hadn't really examined anybody other than Three Mile Island, and if they were typical, everybody needed improvement, but they weren't sure.

This statement seems to imply, if I interpret it correctly, that you have examined everybody and that everybody needs improvement, I guess, except it isn't clear to me whether there are differences in improvement being required or whether there is some standard beyond which if you go, no further improvement is needed.

Then on page 11 I find "the major role of NRC in design is one of leadership to establish a new level of safety." What is that new level of safety?

Is this just a qualitative statement that says the current level of safety isn't enough, and there needs to be an improvement? Or does the staff have in mind some new level of safety that is defined in some objective way?

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MR. MATTSON: No. We do not have a new level of safety that is defined in some objective way. Yes, we do mean to say that the current level should be increased. And the first question was, have we examined the other licensees and found that the deficiencies found by the Kemeny Commission were generally applicable. Yes.

PROFESSOR KERR: So it should really say, there isn't much difference in the management and technical competence among licensees.

MR. MATTSON: I didn't say that. There are some licensees that are better than others. There are some licensees that are better than Metropolitan Edison was in the case of Three Mile Island. There are improvements needed.

PROFESSOR KERR: Do you have some level of improvement such that if a management reaches that, then you'll say he's okay? Or do you expect that everybody will improve about the same increment?

It may sound like I'm dealing with semantics, and I'm sorry if it does.

MR. MATTSON: I know you're not.

PROFESSOR KERR: I'm trying to get an idea of how you'll decide who will do what, because as I read the Task Action Plan, I can't see that there is any discrimination among licensees in what will be required, and this will sort

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of say to me, everybody is going to be required to produce about the same increment of improvement.

Is that what you have in mind?

MR. MATTSON: No. There are differences. Insofar as designs are concerned, they are all going to do about the same thing, because their designs are roughly similar. There will be some that will already have some of the design features required in here so they won't have to do anything, but insofar as design is concerned, the idea is to bring them all basically to the same place.

Insofar as emergency preparedness is concerned, it would be to bring them all basically to the same capability, given the configuration of the population density, transportation routes, local governments, and all those things.

Insofar as technical qualifications are concerned, I think you will see some discrimination in the amount of change required -- some requiring less than others, depending upon how many of the qualifications, technical support sorts of things individual licensees already have.

We know there are differences. We know there are differences in the attention paid to safety in management organizations. We know there are differences in the amount of technical capability that's contracted out for as opposed to in-house.

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PROFESSOR KERR: When will a licensee learn what that level is? In the interchange process that takes place when you ask him for information? He submits it; you then ask for further information?

MR. MATTSON: It's going to differ depending on which issue you are talking about. If you're talking about a design —

PROFESSOR KERR: I'm talking specifically about the statement that improvement of the technical and management compentence of all licensees -- that will take place --

MR. MATTSON: That happens to be one that we've had the same difficulty you have, and in fact probably have gone a step further and persuaded ourselves that we probably won't be able to generate definitive criteria in a time of interest to near-term OLs.

So if you look at the January 5 document that was just handed out at the start of the meeting and go to Attachment 1 and look at the bottom of page one and the top of page two of Attachment 1, Tasks I.B.1.1 and I.B.3.1 have been rewritten for the near-term OLs, and they're very succinctly stated here. But the idea is to substitute inter-office NRC management reviews of licensees' organizational and management competence and safety engineering capability on-site to make ad hoc interim

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decisions on the goodness and sufficiency of those organizational concepts pending development of formal criteria.

The only feedback we've had from the Commission on that I heard yesterday, and the sentiment I have from the Commission was that this might be a better way to proceed than with criteria after all. We have to see how the experiments came out.

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PROF. KERR: So the criteria don't really yet exist, but you would probably have to put them together at least on an informal basis and set up a team that would then go carry out a review.

MR. MATTSON: Yes, not unlike the management reviews that have been conducted in the past by the Office of Inspection and Enforcement.

This is an attempt to add some NRR people and make it a part of the licensing process, rather than the inspection process for the near-term OLs, to make sure that to the best of our ability, we can reach a finding that their organization and management competence, the safety engineering capability, is adequate.

PROF. KERR: Page 4 refers to licensees. I thought you were referring to technical and management competence of people who were already operating plants.

You are, or are you?

MR. MATTSON: Well, we're referring to both. For the already operating plants, we will continue to work on criteria. In the meantime, we will go out on these near-term OLs and using them as first examples, see if we can stimulate the further development of criteria.

The difficulty we're having is that this turns out to be very hard, to write criteria, generally applicable criteria, in this area.

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PROF. KERR: And insofar as this new level of safety to which you refer is concerned, this is not a risk statement; it is simply a statement that things need improvement.

Is that what I am to conclude from that?

MR. MATTSON: Yes. I want to not close this area of conversation without at least mentioning that this is an area that INPO will be addressing to some considerable degree.

And in the future, I think we would look to some creativity and imagination on the part of the management trainers from the institute and from the auditing done by the Institute for Management Competence in the context of the insurance pool.

I don't think that we are willing to wait and have that --

PROF. KERR: I apologize. I skipped back to page 11, in which a statement is made that the major role of NRC in design is one of leadership to establish new levels of safety, or a new level -- to establish the new level of safety.

That level of safety is at this point undefined, except it's better than the existing one.

Is that a fair assessment?

MR. MATTSON: That's fair.

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PROF. KERR: I have no further questions at this point.

DR. MARK: Does that complete the discussion of the operational safety item?

DR. OKRENT: I had one small question, if you have a moment.

On page 1E-7, foreign sources, it discusses how the NRC will try to get operating information from foreign reactors.

This raises a question in my mind. I was wondering if it's addressed here or in some other place. Sometime in the past, I guess it was three years ago, roughly, the ACRS got hold of some requirements for lightwater reactors that were being used by the regulatory authorities in Germany.

And we asked if the NRC staff would look at these and compare them with what was being required from U.S. reactors to tell us what the differences were and where there were differences, why they thought what the U.S. was doing was okay.

I think it's fair to say that the NRC was very busy. They couldn't devote much resources to it. And that's what they told us. And they gave us almost a nothing of an answer.

I have to assume -- I may be wrong -- that they

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did not in the period thereafter look at in some active way what the chairman was requiring because if they had, they would have observed that there were different requirements with regard to certain things you asked the PORV to do in transients, as only one example.

So this is just one other way, you might say, in which had this previous recommendation been followed by the staff, they might have asked themselves, why are the Germans doing what they were doing on the PORVs which we were not.

There are a range of differences between what they have been requiring and what we require. And what I see here is a discussion of operating experience.

But I still don't see mentioned here, and maybe it's elsewhere, of some intent by the NRC staff to find out whether there are significant things they can learn from other groups with a real body of experience with LWRs.

That's not only the Germans, of course, but I use that specific example, because there, indeed, was a formal request from the ACRS.

MR. MATTSON: That's a good point. We will ask the task manager in that area to at least put some words in about including in future consideration of foreign experience better understanding or comparison of design requirements.

I do remember about that same time period when

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those same requirements came there were some safeguards comparisons, sabotage protection, and what have you.

So we did look and we did follow up and did come back down and talk to you about it.

DR. OKRENT: Briefly.

DR. SHEWMON: One of the -- I'll return to it, Mark. Dade, you had a question?

DR. MOELLER: Along the same lines of the analysis and dissemination of operating experience, I note that Westinghouse now, in a recent letter, stated that they realize the benefits of operating experience and plan to perhaps launch a program of examining LERs.

In terms of this portion of the action plan, how much is going to be done by the NRC and how much by the utilities or the vendors?

MR. HELTEMES: I'm Jack Heltemes. I'm the task action manager for Section IF.

To answer your question, what we try to lay out in the first question is the NRC action, and then we have the licensee action.

Primarily, what we are trying to accomplish is to have a coordinated integrated network involving licensees and ourself.

But the primary purpose is to achieve internal to the NRC a capability to systematically look at operating

experience, assess it, and feed it back into the licensing process.

And so customary for our product is three-fold, really. It is the NRR to feed back into the licensing requirements and review of applications. It's to I&E to feed back into their inspection requirements and their resources. And also to the licensee, so they can feed it back into their training programs and make their operational personnel and their engineering personnel familiar with the events that we have studied and the results of our assessments.

DR. MOELLER: So it's cooperative. But you will develop an independent capability.

MR. HELTEMES: Yes, that's for us to develop the independent capability.

On the other hand, the capability will be developed, both of the licensees. We're asking for augmented efforts there and in industrial groups involving INPO, ENSAC, and the vendors.

We have also talked with Westinghouse, with B&W, Combustion, and they all have programs in-house and they are all reviewing them to see how they can better perform the job, the assessment job.

DR. MOELLER: And will NUREG 0572 be used in your planning, or has it been used?

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MR. HELTEMES: Could you give me the title of the NUREG?

DR. MOELLER: It's called, Review of Licensee Event Report.

MR. HELTEMES: Absolutely, Doctor.

DR. MOELLER: The ACRS reports on LERs we've looked at very carefully and we're certainly integrating its recommendations and findings into the ongoing activities.

PROF. KERR: And you would say it's a fine and useful report, I take it.

(Laughter.)

MR. HELTEMES: It's a fine, useful report.

DR. MOELLER: Thank you. That was all I had on that. But I wanted to comment on the previous subject.

The implication was made, at least as I listened, that the NRC now has definitive data on why there is such a variation, or why there are variations in the performance of various utilities who operate nuclear power plants.

Well, now that they have these data, I mean you would have to have such data in order to be able to say some people are better than others, and the degree to which they are better.

Well, now that you have such data, does this plan incorporate the ways in which you are going to modify the regulatory process to reinforce the good things of the good

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utilities and not reinforce the bad things of the bad utilities?

I must say that I did not realize you had such data, but go ahead.

MR. O'REILLY: We have an action item here in which we are going to conduct a formal review of the performance of individual licensees individually and then at the regional level with various office inputs.

And then we are going to review these projects above a certain threshold at headquarters.

And the purpose of that review is to not only look at the inspection programs and enforcement actions being taken; we would be looking at the requirements that we should impose upon them to upgrade them. And we intend to look at the bad performers and of course we'll look at some of the good performers to see why they perhaps are that way.

And the results of these types of reviews will be used in obviously developing criteria and modifying the licenses and modifying our inspection programs, IB2-1.

DR. MOELLER: But you do then have a pretty good grasp of what are the factors that you want to look at to separate the good performers from the bad.

MR. O'REILLY: We have conducted several studies that have given us different parameters that we can measure them.

The NRC is not fully satisfied with these measures. To arrive at that, we have to have, I think, better items, such as better reporting requirements in which we compare them. We have to have improved enforcement programs to be sure that we are uniformly obtaining identifying the problems.

In those two cases, there are action items directed to correct those deficiencies and then we will be able to look at them in a more uniform fashion.

That's been one of the biggest problems that we've had.

DR. MARK: Paul, you had a question?

DR. SHEWMON: I would like to return to Dave's question; in particular, there was a document put out in July, '79 by Babcock, Brown, Boveri on the Mulheim Karlich plant. And basically, I suspect it was to show why Three Mile Island couldn't have occurred in B&W plants designed in Germany or built in Germany.

To what extent did this report and the things the Germans had put in that plant or what they're bragging about there entered into your considerations of what you will impose on B&W plants in this country?

Last month, I asked you about block valves automatically coming on PRVs, which was the one thing I picked up out of here. But there are several others.

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DR. MATTSON: I believe those reports were circulated generally within the staff. I know the lessons learned task force people saw them. To the extent that we read them and agreed with what was in there, they affected our thinking.

Some of those things were done. The automatic closing of the PORV block valve has been proposed by the bulletins and orders task force, I believe, in their concluding weeks, as one example.

If you're asking, have we systematically compared the detailed safety requirements of the Federal Republic of Germany or the French or others advanced in lightwater technology for comparison to our body of requirements in general or specific Three Mile Island requirements, the answer is no.

DR. SHEWMON: Okay. Hopefully, they read this report, but there's no way to prove it.

DR. MATTSON: Those reports have been widely distributed and generally read by a large number of people, not only the German report, but the French reports.

DR. SHEWMON: Thank you.

MR. LEWIS: As I recall, the specific one that Paul was referring to, there was a list of about 8 or 9 items right at the end and there was a specific question asked, which was, is there a reason not to go that way or a

reason why we're better off than they were?

I forgot, there was a factor of three in the size of the water storage tank and things like that.

Were these specifically addressed, or did they just fall into a file and were widely read, I'm sorry, before falling into a file?

(Laughter.)

Okay, peace.

DR. MARK: Dave?

DR. OKRENT: Back in the quality assurance topic, one IF-1, I notice it talks about greater assurance of all plant design construction operation activities properly conducted.

I'm not quite sure whether pre-operational testing is automatically folded in there, or whether it's supposed to be picked up somewhere else, or isn't it a question?

MR. O'REILLY: That would be factored in there, yes.

DR. OKRENT: Now has the staff done a critical review of what has been the practice in pre-operational testing and satisfied itself that, indeed, the current approach to pre-operational testing gives the higher level of safety that Professor Kerr was asking about earlier?

Is this an area where you are satisfied there's no need for improvement?

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MR. O'REILLY: Well, I would like to tell you, in case you may not be aware, we are addressing additional certification of all the start-up test procedures by the vendors.

DR. OKRENT: I'm not talking about the --

MR. O'REILLY: The concept?

DR. OKRENT: I'm really asking about whether the right pre-operational tests are being done. Okay? That's what I'm getting at.

Have you looked in a serious way to ascertain whether the right pre-operational tests are done?

MR. MATTSON: There's a regulatory guide that speaks to the kind of test during preop. That guide has been revised based on experience. I think it's fair to say that a number of us have thought since Three Mile Island there's a lot of things we could have done in preop testing we didn't do in preop testing that we ought to think more about. Primarily in that list is the business of shift crew training that you heard us talk about for the near-term OL extended startup period.

The only thing that's in the Action Plan that addresses the goodness of preop testing is the Item 1g, which is the training during preoperational and low-power testing for the near-term OLs. But it doesn't specifically say, but it clearly is our intent to take the learning experience of the next four or so preop test periods to decide what more could be done during preop testing and hence ought to be done on all future OLs.

DR. OKRENT: I'm not talking about training now. I'm talking about whether the right tests are being done. How is it decided whether the tests that are being done are adequate for safety? Presumably, somebody has decided they are adequate from the point of view of availability of the plant, testing out the equipment.

PROF. KERR: And demonstrating it will deliver the number of kilowatts it's designed for.

DR. OKRENT: In particular, indeed. I'm trying to ascertain whether has looked to see whether that testing is adequate, and if so, why did things like the Millstone under-voltage thing not get picked up, for example, or whatever.

MR. MATTSON: Not systematically. I suspect it was done more systematically in the past when people worried more about physics tests and fuel tests early in the preop testing period. And then there have been pieces added down through the years that look different from plant to plant, like the Peach Bottom startup tests for code confirmation on Reading.

DR. OKRENT: Let me cut it short and say, in my opinion that is missing from this discussion of quality assurance, and I have to assume either it's because you looked very carefully and you are satisfied that indeed this is not an area where you need to look for a higher level of safety --

MR. MATTSON: We can cut it even shorter. We'll include it in our conversation, in our discussion of what ought to be included in the quality assurance paper.

DR. MARK: I think we will have to cut off the discussion of this section of the plan, and I will declare a 13-minute break. And we will take up the second chapter.

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(Recess.)

DR. PLESSET: Let's come to order. We will reconvene and continue with the discussion of the Action Plan. Before we do that, I have to make a remark. I regret that

this subject will have to be terminated no later than 5:30. So if you are mid-sentence, I would be very regretful, but nevertheless we will terminate at 5:30.

Now, I don't want to blame the staff for our being so far behind. I think the Committee is in good form and has responded by regenerative process. You come in somewhat amorphous and the Committee outdoes you in this, and so we've lost a lot of time. I'm sorry about that, but that's the characteristic of the group.

What I would like to have you do is decide how you want to divide your time that remains. If you want to have a slight caucus, that's all right.

MR. MATTSON: Well, I think we would like to divide the remaining time equally between chapters two and three, and that means one hour or 45 minutes, whatever that turns out to be, per chapter. And I guess let's try going until 4:30 on chapter two and save us an hour for chapter three. And towards the end we might want to talk about these near-term OL things that are appended to the memo you got.

DR. PLESSET: Yes. It's been suggested, Roger, that maybe you might plan on like three-quarters of an hour each, so we will have some time for general comment at the end. Could you do that?

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MR. MATTSON: If you wanted to forego chapter four entirely, I'd relieve some people so they could go home.

DR. PLESSET: I'll leave that to you. It sounds like a good suggestion to me.

MR. MATTSON: The only thing in chapter four that might be of interest to you, I think -- well, two things: one, the role of ACRS; and, two, the reactor safety policy. If you have comments to offer us on how the plan is written reflecting the views of the ACRS on its role, we'd be glad to receive those, alter the plan accordingly. Or if you have comments on reactor policy --

DR. PLESSET: If you could leave a little time for that --it means abbreviating those chapters two and three even more than that -- then we would be able to do this last item briefly. If you could possibly do that, I think it would be useful.

MR. MATTSON: Okay, we'll start with chapter two.

DR. PLESSET: Fine.

MR. SCROGGINS: Thank you, Roger.

My name is Ronald Scroggins. I'm a member of the steering group for research, and I'm also responsible for the chapter two part of the Action Plan.

Chapter two, as its title implies, includes a number of action items which are related primarily to the improvements in reactor design, engineered safety features, and also consisting of items related to component system reliability. In addition to a number of those items is some specific topics

on siting, siting policy, the TMI-2 current operation, cleanup and examination, and the subject which has been touched on already, which also plays a part in chapter one, and that has to do with the vendor and the construction inspection program. I would like to sort of briefly summarize some of the highlights and thrusts of the major topics in this chapter. The task managers are present to answer any specific questions, and we could maybe take them a topic at a time. It might be a little quicker, since we have about 45 minutes I gather.

The first topic area, on siting, the thrust of this primarily is development of an interim policy statement on siting, followed by a rulemaking to come up with a siting policy for new plants. This is already -- this direction is already under way and been approved by the Commission.

In addition to those items, there is a review under way now to look at added requirements for specifically the high population density sites, to cope specifically with coremelt accidents. And those efforts are under way, in specific looking at the Indian Point and the Zion reactor.

That's sort of a summary, oversummary.

DR. MARK: To what extent is it regarded that siting has anything specific to do with TMI-2?

MR. SCROGGINS: Primarily, the latter part that I mentioned, and that is that looking at such things as the beyond design basis accidents, the coremelt, and the existing

plants and high population densities and to what extent either added design features could be put in to mitigate the consequences of such actions, to improve the emergency procedures -- things of this type is the basis for the siting section.

DR. MARK: I'm aware of generally just what you mentioned with respect to siting. But it never occurred to me before that it was TMI-2-related in any very direct way.

MR. PURPLE: My name is Bob Purple.

I think you're probably correct in a technical sense. But in another sense, it was made a part of the TMI-related thing by being referenced and mentioned and discussed in the Kemeny Commission Report.

MR. SCROGGINS: Do you want to ask questions on that or just continue on? Whatever is your -- the next topic area is the degraded or melted core, and it consists of a number of actions which have, as Roger will go into later, been highlighted for applications in the near-term operating licenses regarding the reactor coolant system vents, additional shielding for vital areas, and the additional system designs for sampling of primary coolant containment atmosphere.

Also included in this section is a plan or intent to improve the training programs to include consideration of actions that might be taken by the operating crew to mitigate and affect severe, beyond DBA-type core, severely degraded core type accidents, leading on to fuel melt. The supporting

research program for the fuel melt area, degraded fuel, was included in this section, and also the requirements for the vendors to consider conceptual designs and filter vented containments is included in this section as well. There is a final item, really, and it's proposed that the whole area of degraded fuel will be looked at as a rulemaking. There is an intent to initiate a rulemaking proceeding to consider the many aspects of degraded fuel. And specifically a subject in that is the question of the rule regarding the hydrogen, acceptable hydrogen rates, especially as relates to small containments.

That's sort of a general summary.

DR. SHEWMON: Would you explain what you mean by rulemaking with regard to degraded fuel?

MR. SCROGGINS: It is the intent on the rulemaking -- well, one aspect would be, for example, as I indicated, the question of the hydrogen rate on small containments. But it is to look at the whole question of whether design features that might be required to mitigate the consequence of severe accidents, such as the fuel melt, to bring in questions such as core catchers, et cetera, might turn the --

DR. SHEWMON: Okay. These are not to decide whether you're for or against degraded fuel. It's what you do if there is a bad accident in that regard.

MR. SCROGGINS: Right, both in design and

operation, et cetera.

DR. LEWIS: There's one technical question that came up Monday. I'd like to repeat it because I've been thinking about it. I'm a little more concerned than I was Monday about it. That is the emphasis on degraded but unmelted cores, that has come to us in the aftermath of Three Mile Island. It may still be true, even though Three Mile Island happened, that degraded but unmelted cores are a very, very rare event compared to undamaged or melted cores. And if that was so, then this new emphasis on degraded cores may be a step away from safety.

And I wonder to what extent this issue really has been and will be analyzed and fed into your consideration?

MR. SCROGGINS: That concern has been raised in the steering group discussions. In fact, I think maybe Bob -- to some degree, this is going to be looked at in the Probabilistic Analysis Staff.

MR. BERNERO: There was a discussion just this morning on that issue with Sandia. In the integrated reliability evaluation program, one of the things we hope to do is to see whether we can distinguish the -- I'll call it the likelihood of degrading the core badly without melting it, as against going all the way to melting.

I agree with what you said on Monday, that we don't know whether that's the highly likely or 50 percent probability

of getting halfway. It is, of course, associated with the human error, which is completely reversible. And at any time the poor fellow may turn the pump back on and stop the degradation.

I don't know whether we will be able to quantify that. I just don't know. But we are going to try to do it.

DR. LEWIS: I hope so, because I'm more nervous, not for any substantive reason, just because of improving it, than I was on Monday, because I really think it's entirely possible that a degraded core may really be a rare event. And in that case, we better be careful not to concentrate too much on it.

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DR. OKRENT: In that context, some of the research that's been identified in the fuels area, for example, on page II.B.5 and 6, it talks about fuel debris behavior and so forth, and my impression of what is planned for the next phase of DBF is that it's sort of aimed at this degraded core but not melted core.

I may be wrong, but at least that's my impression. I wonder whether the same kind of point that Dr. Lewis has raised enters into how you decide whether or not to say there should be research or there shouldn't be in this document.

I have a little bit of a suspicion that pretty soon this document is going to become the Bible for the next 18 months, and if it's not here, it can't be done and if it is here, it must be done sort of thing. I can't tell in the research area why one thing is here and another thing is not when I read it.

MR. SCROGGINS: I think Roger touched on that at the outset. Taking the second part first, I think the intent certainly is that those actions, those things that are planned in the Action Plan indeed will be done but on whatever the final schedule agreed to, based upon resource availability, et cetera.

In this case, this is a research program which in effect purports to confirm actions taken by the licensee's

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staff. The former, however, the fact that something is not in the Action Plan will not be done is not the case.

There is the base program that exists in all of the operating offices, only to the extent that it might be reprogrammed to support the Action Plan because items in the Action Plan are determined to be of higher priority. Would that have that impact?

DR. OKRENT: I'll give you one other example. There seems to be some driving force within the staff that you have to do reactivity insertion accident experiments at DBF at rather low level energy input experiments. Apparently, there is some kind of a regulatory requirement that leads to a need for information in this area.

It's not at all clear to me that had you applied the same kind of judgments concerning what's the gain in risk and so forth in doing this experiment versus some other experiment, that this would appear anywhere but at the bottom. And yet, it's been done. It's still in. It's been questioned. It's still in.

MR. SCROGGINS: I understand your point from Research's point of view. I would say it is a very low priority. Any other questions on degraded core?

(No response.)

DR. PLESSET: Why don't you go ahead?

MR. SCROGGINS: Okay. The next section area is

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entitled "Systems Engineering Reliability" and primarily relates to the IRAP program, which I believe the Committee is generally familiar with, and calls for or at least outlines the current Crystal River study, the proposed six-plant study, and the follow-on to the remaining operating reactors.

There will be in the new plan a requirement for a mini-IRAP evaluation by the licensees prior to an NTOL near-term operating license, and any questions, I would suggest Bob Bernero, the Task Manager, for this section is here.

Any questions of Bob?

DR. OKRENT: Mr. Chairman, the Committee has made some recommendations in December that relates to this, and it seems to me I still don't see how the staff is going to respond to those recommendations which I would say represent some strong complementary actions which are proposed. Until we see whether that's suitable, it's hard to deal with this.

DR. PLESSET: Okay.

MR. SCROGGINS: Okay. The next topic area is entitled "Relief and Safety Valves." This primarily includes the requirement for the industry, the licensee in combination with the industry, to embark on a test program of relief valves. It includes the possibility of NRC involvement in that test program at some level and

follow-up and also for the near-term operating licenses would include a requirement for position indicators for relief valves prior to full power operation.

And that's the thrust of that section.

DR. PLESSET: Why don't you go on?

MR. SCROGGINS: Okay. The next section, the next topic area which is entitled II.E is actually a collection of a number of component systems, et cetera, type of action items, and they include auxiliary feedwater systems, sort of a follow-up to some studies performed earlier this year by NRR and Research and will require a simplified reliability analysis by licensees of the auxiliary feedwater system -- sort of, in a sense, a mini-IRAP evaluation of the aux feed system.

There is a section here on emergency core cooling systems. This includes, as mentioned earlier by Dr. Lewis, a discussion of the intent to decrease the frequency of challenge to the ECCS and also includes as a primary aspect of it the significant research effort on the small break transients, both in experimental and analytical areas.

There is an area on decay heat removal. The main thrust of the decay heat removal is again reliability analysis of the decay heat removal system, the RCS. There is a section here, for example, requirement on licensee to maintain natural circulation of the RCS on standby, and

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also included in this is some of the improved reactor safety studies to look at alternate decay heat removal systems.

There is also a section on containment. The intent here is to upgrade the capability of the containment system, to look at such questions as providing redundant penetrations for the containment, for auxiliary heat removal, for the -- I mean the hydrogen recombiner, looking at water level indicators in the containment and also some supporting instrumentation.

And I think that's what's included in that general section -- a number of small system and component evaluations.

DR. OKRENT: On page II.E.3-2 at the bottom, it describes some research that's being done on alternate decay heat removal concepts.

MR. SCROGGINS: Yes?

DR. OKRENT: And it shows resources -- $200,000 in FY '80; $400,000 in FY, '81.

MR. SCROGGINS: Correct.

DR. OKRENT: Since there's no qualification concerning this set of numbers, I assume, at least at the moment, that it was felt that this constituted adequate resources for whatever job it was the staff thought should be done?

MR. SCROGGINS: Yes. They are essentially the

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resources currently budgeted for by Research --

DR. OKRENT: I didn't ask whether it was the resources budgeted because I know it was that. I asked whether it was the resources the staff considered adequate for the job on a timely basis.

MR. SCROGGINS: The staff that prepared this section thought that was an adequate level.

DR. OKRENT: I see. Is there going to be some kind of a basis by next month which will tell us why the staff thinks this is an adequate amount and what it thinks will be done with this amount and so forth?

MR. SCROGGINS: Not by next month, no.

DR. OKRENT: But somebody has made a judgment? I mean I could, for sake of argument, say in order to do this job, $6 million would be enough. That's ten times as much as you have. And I think I could make a case right now that that wouldn't be enough. I don't know whether it would be any more convincing than yours, but I'm just trying to make a point.

It's not obvious to me that $600,000 is enough, and yet it's so stated. Let me indicate this is an example which you should think about, in my opinion. But also when you go through this document where you are allocating resources or indicating how many resources you need, especially of this sort, I think you do need to ask yourself

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what it is you think you need to do, and is this really it, or is it just what's available, or whatever it is that you're saying.

MR. SCROGGINS: In the first draft, the intent was that the resources noted in this draft one were to be the resources which the staff felt were required to do the job. As it turns out, this was an area where the different groups had prepared this first draft -- indeed, the answer wsas a mixed bag. The great majority, I believe, were the resources as indicated by the staff as required, but this was not true in total throughout this draft.

That is one of the things that is plan ned to be taken care of in the next draft.

DR. OKRENT: I suggest you find out, in fact, whether DOE will have a program, since you talk about reviewing a DOE program in here that would be relevant.

A different question I would like to ask in the area of auxiliary feedwater systems. The staff has done a mini-reliability review, a quick look as it were, and made some early decisions that some things neeeded to be fixed.

MR. SCROGGINS: That's correct.

DR. OKRENT: I think I can understand the logic for those decisions. I'm not quite sure I understand the basis on which for the longer term the staff decides that auxiliary feedwater designs of one sort or another are

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adequate. Has that been spelled out, in your opinion, or is it something you are going to study? Or just what is that situation?

MR. SCROGGINS: Jim will answer.

MR. NORBERG: Jim Norberg. I'm the Task Manager for this section of the report.

The staff has recommended some both short-term and long-term type of work that needs to be done on the auxiliary feedwater systems. And, in fact, they have sent out letters to, I guess, most of the operating plants in this area on a more or less plant-specific basis.

But they have also identified more or less generic types of items that should be looked at for all plants, and I think that the short-term sort of things are things that can be done in the immediate future.

DR. OKRENT: My question is, how is the staff arriving at a judgment that an auxiliary feedwater system for some specific plant after it does a certain number of things or perhaps in its current form because it's good enough, is good enough?

MR. MATTSON: I think part of it is what Jim just said, but there's more to it. And I'm not sure it's well enough reflected in here. It's a good point.

The bulletins and orders people did the feedwater reliability study from which they derived generic

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improvements that ought to be made in the water systems. Those generic improvements are being applied to operating plants.

The intent is to apply those same generic requirements to new plants. In addition, as reflected in the plan, it's intended to do reliability studies for new plants -- some only generally specified but one specifically specified. That is aux feedwater system reliability.

As I say, we do an aux feedwater system reliability study for Sequoyah. How do we decide -- I think your question is what Sequoyah ought to be required to meet.

DR. OKRENT: In the long-term.

MR. MATTSON: In the long-term. Part of it is the same basis that was used in the operating plants last summer -- that is, cost effective improvements in reliability to sort of the best available or best practical reliability in the same manner that the decisions were made last summer. That is, if cost effective changes can move a low reliability performer up to an average or high reliability performer, they ought to be made compared to the reliability of other previously approved aux feedwater systems.

But I think maybe the plan ought to talk about going a little further in attempting to specify some reliability goals. I mean, after all, that is one approach

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we talked about last summer -- something that could follow these kinds of studies. Remember when we talked about, should you set a numerical overall risk goal and let the reliability goals fall out of it? Or should you proceed to set individual reliability goals and over a period of years see what's derived as an overall risk result?

I'm not stating which I prefer. You can certainly approach the latter --

DR. OKRENT: I'm posing a question which obviously generalizes. When you do your IRAP studies, somebody's going to have to look at other systems and say, "Yes, they are okay as they are" or "No, we think they should be fixed on the short or long term."

I can't tell the basis that will be used. I heard a crude basis mentioned -- I don't know that it's in writing -- that was used for the auxiliary feedwater study, but I don't know why number 10 to the minus 5, which was mentioned by one staff member, was a point estimate of the reliability of a "good system."

PROFESSOR KERR: Indeed, it seems to me that if the staff talked to the people who worked on ATWS, they would refuse to believe a demonstration of 10 to the minus 5.

DR. OKRENT: Indeed, that could be. At the moment, I am trying to see how you are going to cope in that area. And I have chosen auxiliary feedwater in large part because it's one that has been looked at and you have a little feel for that one. I didn't see something written that told me exactly how this was going to be dealt with.

MR. EBERSOLE: Roger, it seems to me before we can even get started on this sort of thing, we need to know how badly we need auxiliary feedwater, and with it how badly we need the natural convection concept. We were wrestling with this problem on Wednesday with B&W and we were told that all of their plants could tolerate total loss of auxiliary feedwater and main feedwater and total loss of the natural convection concept and operate on a bleed and feed arrangement, except Davis-Besse.

Now, I don't know but what B&W are the only plants that can do that, and others, Westinghouse and Combustion, can't. It seems that at the root of all this one should say, how badly do I need natural convection and auxiliary feedwater, and find out what happens when you lose either or both of these. And I haven't heard what happens.

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MR. MATTSON: I think you could still approach it the way we were approaching it last summer, by just adding some events to the reliability things that were of interest to you. Remember, we had thee years we looked at aux feedwater.

You could add a fourth, which was loss of all feedwater, and talk about what reliability you wanted to achieve or could achieve for various classes of systems.

MR. EBERSOLE: Or loss of natural convection or both. As I'm saying, B&W has evidently found it feasible to claim, awkwardly, that they can cope with a loss of all feedwater and loss of natural convection.

MR. MATTSON: Shouldn't this be one of the goals for IRAP?

MR. EBERSOLE: I don't know where you put this search. Maybe it should be there. I don't know. I'm just saying, before we can get going on this matter of how good aux feedwater ought to be, which is what we were working on Wednesday, we need to know how badly we need it. We were having real difficulty finding out how good it should be, because every time we turned around we would come up with answers, no core damage and no really serious effects.

MR. MATTSON: That's because you were looking at B&W.

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MR. EBERSOLE: Yes. But I think there's a generic aspect to this: Should all plants be independent of aux feedwater and natural convection? Should they all be highly dependent upon the presence of aux feedwater and natural convection and, for that matter, pressurizer heat? There ought to be some common ground rules. And I'm saying the

industry should have the flexibility to just have its own set for each kind of plant.

MR. MATTSON: I have a feeling you're bordering on the universal safety question, and I think the only thing that tries to come to grips with anything that broad in this plan is IRAP, as you make decisions on how to set criteria for systems you study --

MR. EBERSOLE: Yes.

MR. MATTSON: -- with IRAP. And you will start to see those kinds of differences really elucidated for the first time, not just this particular one but lots of them, as a result of studying with reactor safety study methodology all designs, which is what IRAP is all about. The difficult is you don't know answers to questions like this for two or three years, and so, should we put in the plan some specific way to derive those kinds of answers or should we just understand that such answers are necessary as we go along, executing pieces we can now see, and let the answers evolve.

MR. EBERSOLE: I was looking at this also in a side context, that of venting the primary loop. Certainly, one concept could be you could vent the primary loop to the degree that in fact you could make it competent to reject the need for aux feedwater.

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MR. MATTSON: Yes.

MR. EBERSOLE: In much the same way that the BWRs

do it. It would be messy, of course, because you could mess up the containment. But you could force the issue.

MR. MATTSON: Worse than just messing up the containment; you mess up equipment that you probably rely upon.

MR. EBERSOLE: You would have a problem left behind you. But this ought not to happen, anyway. I'm talking about preventing really serious events.

MR. LAPINSKI: Walt Lapinski, consultant to the ACRS.

At the meeting in Los Angeles last week, Dr. Rosztoczy was there and this thing of consequences is very important. The consequences are a coremelt on long-term loss of feedwater.

MR. EBERSOLE: Is that a settled and accepted --

MR. LAPINSKI: This applies to half the Westinghouse plants, all the CE plants, because the primary system equipment cannot function at the higher pressures.

MR. EBERSOLE: So we were right, then, that B&W is the only one that has a current claim.

MR. LAPINSKI: That's right, because of the bleed and feed capability on the primary.

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MR. EBERSOLE: B&W has shown it's feasible or practical or it has occurred by accident that this could be the case. Should that just be the only plant design that has that capability? Is that a substantial advantage? Are we unduly criticizing the design of B&W, when it has this

advantage?

MR. MATTSON: All good questions, to which the previous answer I gave was intended to apply. He didn't say all Westinghouse, I don't think.

MR. LAPINSKI: Half.

MR. MATTSON: Half. I thought Jesse said all.

But this isn't new information. We have known this.

MR. LAPINSKI: This is tied to the reliability --

MR. MATTSON: The question is, how do you decide whether loss of all feedwater is a necessary design event for pressurized water reactors; and if it is, what are acceptable designs for coping with that event, whether a doubly redundant, high-pressure ECCS is sufficient, or whether you want high-pressure ECCS automatic depressurization and low pressure ECCS, a la the boiling water reactor.

MR. EBERSOLE: Or the other part of it is loss of natural convection as a function because of loss of natural convection.

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MR. MATTSON: I don't think we know the answer to that question. We probably know how to get about getting it: reliability assessments of a variety of designs. Now, you get it indirectly and implicitly the way the plan is currently written. It calls for IRAP of all designs.

If you want to get there faster, I think you have to go directly at the questions rather than implicitly after

questions. The difficulty is that you will get answers to the narrow questions understood today if you go after narrow questions specifically. It's a resource application thing, predestined what you can learn about.

I don't know that we've given too much thought as to which is the preferable approach in deciding on the one that's in here.

MR. EBERSOLE: I'm getting the impression that I need aux feedwater in the secondary circuits on CE and Westinghouse plants much worse than I do on B&W. Yet I find a mechanism, which is gas inclusion and removal, a natural circulation process, which is also in just those plants, those U-tube steam generators. So this is unfortunate.

MR. MATTSON: Yes.

MR. EBERSOLE: You can fully vent a B&W plant and claim natural convection, I think. Not so for CE and Westinghouse.

MR. MATTSON: Yes.

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MR. EBERSOLE: Go ahead.

MR. MATTSON: That might say, stated in the way we've been stating it in the last few minutes, might say it's aware of the addition to the plant. I think what I'm going to do is to go back and ask Ross to see if he can, on the basis of his experience with Bulletins & Orders, phrase a question for consideration by the steering group to consider adding.

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MR. SCROGGINS: The next section, instruments and controls, includes some items like installation of a subcooling meter, additional instrumentation to help understand both conditions such as containment pressure, hydrogen concentration, and radiation levels, and design of a vessel level indicator.

That's the main thrust of it.

There is another section on electrical power which is very specifically a requirement for having emergency power source available for the pressurizer relief valves, block of valves and level indicators. Those are also being applied in near-term operating licenses.

The section on TMI 2 happenings --

MR. EBERSOLE: Pardon me. Before you get off that, I have never heard anything but the fact that you're going to operate the power supply on the pressurizer. Those have never been qualified for a hostile environment.

Are they just intrinsicly qualified to last through a hostile containment environment? Are you going to do anything about it?

Vic?

MR. BENROYA: Task manager. We are looking into it right now and probably will be putting it in the task action plant.

MR. EBERSOLE: Thank you.

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MR. SCROGGINS: The section on TMI 2 clean up and examination just calls for the continued maintenance of the safe operation of the TMI 2 plant and minimized environmental effects and also includes discussion of the joint program effort between the NRC, the GPU, DOE, and EPRI on the planning of the clean-up operation and the intent to obtain as much technical information as possible consistent with that operation to be fed back, in effect, into our lessons learned from the TMI accident.

And the final section, I think the thrust has already been discussed, the vendor construction inspection program. The need to improve and upgrade this is tied very closely to the QA discussion that was held earlier on Chapter 1.

Most of this is now being moved in the rewrite into Chapter 2.

MR. PURPLE: Okay. Roger, on to Chapter 3. Chapter 3 has got 5-lettered subdivisions, but really covers two types of things, things dealing with emegency preparedness and radiation protection items, radiation protection both in terms of occupation exposures and public exposures.

For improving both NRC and licensee preparedness to handle an emergency, we can talk about these in two groups: One, the kinds of things that the action plan

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calls for to improve the NRC's capability to respond to an emergency.

You will find in the action plan several internal organizational kinds of things and physical facilities within the NRC complex that are discussed and called for.

One major thing, major in the sense of a high cost item, is a thing called a nuclear data link. The extent of that program is strongly tied to a decision from the commission on what the role of the NRC should and will be in responding to emergencies.

And that subject is the subject that the commissioners have asked be presented to them in a separate commission paper, separate from the action plan so that they can come to grips with it, because until you decide what role the NRC should play, it's hard to decide what kind of data, if any, you need brought back into Bethesda in order to respond during an emergency.

There is an item for communications which includes two dedicated telephone lines to each facility. That's not new. That's being put in place now. One new item within that is the idea of putting radio communications between all sites and all regional headquarters in the operation center here in Bethesda.

And the final set of things for NRC improvement involves calling for emergency response drills and exercises

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to be sure that we can follow the plans and that our plans that we develop are proper.

For the licensee, there is two basic kinds of things that are called for in here. One of them is a series of facility capabilities centers. You see technical support centers, operational support centers, emergency operations centers, and health physics centers.

All of these came from the experience of TMI and are intended to improve those kinds of things in the future.

The second type of things for licensee have to do with upgrading their emergency plans themselves, and that's going on in two pieces, one of which stems from a letter of July of '79 sent to all licensees for immediate upgrade of emegency preparedness with a rather extensive list of actions required to be taken right away.

For the long-term, you are embarked on a major emergency planning rule-making. One of the major features of that in that rule-making is the concept of obtaining federal concurrence in the state and local emergency plans.

I would suggest I stop there and see if for Sections 3A and B there's any questions.

DR. PLESSET: Bill?

PROF. KERR: As I read the Kemeny Commission Report, it seems to me there are two somewhat conflicting things, one of which says Three Mile Island was serious

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enough that we can't tolerate another such accident, and the other of which says we know that we may have another such accident, so we'd better be prepared for that accident, or something worse.

Now the first approach says we need to spend a lot of effort to try to make certain we don't have another accident that serious, and the second one says we'd better be prepared to handle it if it occurs.

With a finite amount of resources, it seems to me one has to make some sort of allocation and give one of these some sort of priority or perhaps give them equal priority in assessing what needed to be done.

Do you consciously deal with that division of resources? Do you try to give more emphasis to preventing or more emphasis to mitigating once you have such an accident? Or is there a conscious effort to accommodate these two somewhat diverse viewpoints, it seems to me?

MR. PURPLE: In the scoring system that we used -- that we're using and trying to apply to each and every one of these action items, we try to put into that a scoring element that dealt with whether the item was one of accident prevention or was it one that assumed the action that happened and now you're working on accident mitigation?

We couldn't reach agreement how to fold that in. We did put it in. I believe you'll find as an enclosure to

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this scoring system the three-page affair that you have -- it talks about how to judge potential safety improvement.

And in there, it talks to the fact that things that can prevent an accident should generally be judged more important than those that mitigate an accident, the idea being, as you just said.

So to that extent, that would help influence the judgments of those who are going to rate these items, that things that are mitigated are going to end up with a lower priority than those that help prevent an accident.

The counter-argument to that is that you may at some point in time, you reach a point of diminishing returns for your dollar in preventing things, and that you may get a whole lot more worth out of simple things you can do to mitigate an accident once it's happened.

So there's tough arguments on both sides.

PROF. KERR: I know they are, and that's the reason I wondered how you had decided between the two if you did have any conscious way of trying to decide between the two.

MR. PURPLE: Only as I described in the rating scheme, and it's very subjective. It helps an individual rater or us as we are rating these, to judge whether you give them 100 points, 50 points or zero in terms of safety reduction, safety potential.

DR. PLESSET: Dade?

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DR. MOELLER: In reviewing this chapter, there are several things that I wanted to comment on. One is it talks quite a bit about training of state and local people.

I don't see much in the way of outlining how the licensees are going to be trained. I guess they say the licensee will take care of this, but I don't see much in the way of definitive information on what types of training the licensee should have.

Also, in terms of even training the state and local people, I notice that they are putting a lot of emphasis on this and they are conducting a lot of courses now. But the goals of these courses aren't clear.

I have a comment here from one state person who has people who are taking, or taking some of these courses. And the statement is that the original mission of the course was the training of state people in making and interpreting off-site measurements in the wake of a reactor accident.

And this person says the courses they give do not end up with you having acquired that type of talent.

My second point is on the mitigation measures that are discussed in here. And it seems like evacuation is almost totally the only thing that's discussed; whereas, I would think that for an action plan, you would be looking at all types of mitigating actions or interdictive measures and using the best combination.

Thirdly, I have talked to state people recently, several, in fact, through our subcommittee. I think it was December 20th, one of the state people came in and complained about some of the problems in terms of emergency planning.

And they tell me they still don't know if another accident occurred. They still don't know how NRC and the states would interface.

In other words, it's not in the least way clear to them as to who would call whom and what responsibilities and exchanges of information would take place.

So I guess one of the main comments I end up with having looked at Chapter 3 and having talked to the state people, is to ask the NRC in developing this action plan, to ask them the degree to which states are being contacted and having an opportunity to look at this plan.

I mean this plan is going to involve the states. It's going to be impacting heavily on them in terms of what they are to do.

And yet, I don't see that their -- you are asking the ACRS to comment; are you asking the states to comment?

MR. PURPLE: I'll have to take a few minutes to give you some background. I misspoke when I said I was through with 3A and 3B. I hadn't really talked about 3B yet. 3B as you see it in the draft will come out almost in its entirety and be replaced with a single item, which will be a discussion on the timing and so forth of an MOU that is now in the final stages of development and agreement between FEMA, the Federal Emergency Management Agency, and the NRC. And the reason that all that is taking place is that, you may be aware, in the President's statement following the Kemeny Commission, the responsibility for all the items that you just mentioned was officially given to FEMA.

The approach being taken by the NRC for that transfer is one of through the route of this memorandum of understanding. It's one that's very similar to -- it's analogous to the approach that we've taken, in which we rely upon the expert advice of the USGS for earthquake matters. The concept is that in time we will depend upon the expertise of FEMA to tell us that state and local plans are acceptable and are okay.

FEMA is a new organization that doesn't today have the technical capability to do that. Part of this memorandum of understanding is a detail of 13 people from our present organization with Office of State Programs, who are the technical people that have been working in this area, to go

downtown and work with the FEMA people until they can get themselves up to speed.

DR. MOELLER: Then I think the Action Plan has to tell precisely how this transfer of authority is going to take place and how you are going to assure that in the interim everything is in good shape.

MR. PURPLE: It will.

DR. MOELLER: We cannot simply say that that belongs to another organization.

MR. PURPLE: That is carefully built in and will be spelled out in the writeup.

DR. MOELLER: Well, are the states -- now, regardless of whether FEMA or NRC takes care of it, are the states going to be given an opportunity to read this and to comment on it before it becomes the final word?

MR. PURPLE: You mean read the memorandum of understanding?

DR. MOELLER: No, read your Action Plan. You have an Action Plan which heavily involves state and local agencies. Now, are they being given an opportunity to have input?

MR. PURPLE: The present version of the Action Plan has a lot of that in it. The final version will have only the discussion of this MOU and the transfer and the orderly transfer and safe transfer of the responsibility to FEMA. I really don't know the answer to the question as to what

degree FEMA intends to interact with the states as they are setting up and, for example, as they're taking over these training programs, will they -- and expanding them, which I think is called for in the present draft. All those things will happen that are described in the draft. But since they are no longer NRC actions, we weren't going to describe them. I can't answer the question, because I simply don't know to what degree FEMA intends to talk to the states and get their inputs.

DR. MOELLER: Again, I hope someone can pass the word along to FEMA that, in establishing these training courses, certainly they ought to assure that they know what the goal is, and that they are attaining it.

I find it unsatisfactory to -- I realize there is a transfer taking place, but I cannot be happy, as a member of the ACRS, simply being told that this other group is going to take care of things and that we can be happy with it.

DR. LEWIS: On top of that, I have had a little interaction with the people in California, which is, after all, my state, and where there is now legislation which puts the state on the road toward the handling of emergencies, radiation emergencies. It would be very interesting to know whether any coordination has yet occurred between the NRC planning, FEMA planning, state planning, because certainly the level of education or, let me say, the opportunities for

education in California are vast.

MR. MATTSON: I don't think you should take this discussion to imply there isn't an extraordinary amount of discussion between the state and emergency planners. Especially since Three Mile Island, programs have been run for literally hundreds of state representatives in all nuclear states, that is, states with nuclear power plants. The acceleration of efforts on emergency planning since Three Mile Island has involved site meetings with licensees, local officials, state officials, widely reported in the media and internal NRC documents.

I understand there to be all kinds of activity between the feds and the states on emergency planning today. I wasn't aware there was a need to remind people of the need for coordination, Dade. I'm surprised that what's happening isn't exactly what people have had for some years ought to happen, and it's going on right now.

The threat of shutdown of operating reactors because of lack of state concurrence or federal concurrence in state programs within six months has turned the tide, as far as I know.

Are you implying that you think that they are not --

DR. MOELLER: I just want to be sure we place in the record and that you are fully aware that certainly the Subcommittee that I deal with, that relates to emergency

planning, has been contacted by two different states who are very concerned about the situation.

MR. MATTSON: About this plan going on without their involvement?

DR. MOELLER: About the training programs that are under way, the interface with the states in terms of emergency planning. And it's not in terms of your Action Plan, because they have not seen that, so far as I know. Both states have nuclear plants.

DR. SIESS: Do you know if they're NRC-approved plans?

DR. MOELLER: Well, it's Pennsylvania and Alabama. I really don't know.

DR. LEWIS: Just one further comment. It is certainly so and everyone does know that lots of training has gone on. That does not imply that the interface between the state authorities, who are ill-educated still about nuclear matters, and the NRC is well understood. And I thought that Dade's original question was simply whether the states will have a chance to comment on those aspects of the Action Plan which apply to them. And I think that question never got answered.

MR. MATTSON: The answer is no.

MR. GIBSON: I'm Greg Gibson, task manager for Section 3A, with I&E.

I would also like to respond on your general

statement about the feedback loop. I think you have got a wrong impression about the fact that there is indeed a feedback loop on the training programs which are being conducted by Office of State Programs out in Las Vegas. Each attendee to the training courses is required before they leave -- they are given a course evaluation form. These course evaluation forms are collected and on a quarterly basis they're evaluated by the Office of State Programs, and recommendations which have in fact resulted in changes to the course content -- course length, as a matter of fact -- have resulted in what we hope are continuing improvements in this type of program.

I in fact had attended, and NRC personnel go and evaluate the content also, as observers, to improve this type of program. So we do have not only state people making evaluations known, but also NRC personnel going and making their recommendations known also.

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DR. OKRENT: A different area in this category --

PROFESSOR KERR: Dave, if you'll excuse me just a moment, is there some reason why the state people shouldn't comment on this? Is it still in-house in such a way or can't be if we see it?

MR. MATTSON: What would you ask them to comment on?

PROFESSOR KERR: I don't know. If it's going to involve them, it seems to me it wouldn't hurt if they saw it. They might have some comments that would contribute something. If they aren't intelligent enough to comment on it, they probably aren't intelligent enough to be part of the program you're going to set up. So it seems to me at some point, you need to find that out.

MR. O'REILLY: As far as I know, all the actions that are going on in the area of emergency planning that would affect the states in the area of emergency planning is being coordinated right now with various task forces with the states.

PROFESSOR KERR: I don't know what "being coordinated" means.

MR. O'REILLY: Meeting with them, discussing it with them, getting feedback from them. There have been public meetings. The states have participated in private meetings. In the Regions, we deal with them all the time.

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MR. MATISON: There are basically two things that affect states. One is upgrading licensee emergency response capability. That's something betwee us and our licensees. In theory, we would just be able to say to them, "Go do us the right things with the states."

We've gone beyond that with Three Mile Island which said, "When we meet with you, we're going to meet with each of you in a public meeting right out there at the plant. Bring your local officials, state officials. We want to have it out -- right out there, and get some of these things decided in this upgrading of emergency plans."

So in that sense states are involved. They are brought in for the first time in these head-to-head between licensee and regulator meetings on emergency preparedness.

The other aspect of involvement with states -- training concurrence -- the responsibility for that no longer resides with NRC.

PROFESSOR KERR: Roger, I don't want to spend a lot of time on protocol because I don't think it's important, but I've had one experience with the State of Michigan in which, because of misunderstanding about who supplied the information, the Governor finally decided to not permit DRDA at the time to do some exploring of potential waste disposal.

All I'm saying is for local governments, they are

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very jealous of their prerogatives, and they don't like to feel that they are being brushed off by the Feds, as they refer to them. This is not my language. It's a fairly universal one.

It seems to me, if you can do something which really doesn't cost you very much money, just ask them to look at these things, it at least will give them some idea that they are getting a chance to comment, that even though you maybe aren't in a position to do anything, there will be a point at which they are going to be asked to cooperate with vendors -- it just seems to me that in terms of finally getting something done, not in terms of satisfying legal requirements but in terms of finally getting something done, it would be helpful if they knew what was going on.

Perhaps, not. I'm not nearly as familiar with this as Dade is, so I'm speaking perhaps from lack of understanding.

DR. PLESSET: Dave, was that another point?

DR. OKRENT: Another point. I don't want to interfere with this.

DR. PLESSET: I think we have expressed some views here, so let's go ahead.

DR. OKRENT: I was just wondering if the staff has some kind of criteria for judging what constitutes adequate protection against radioactive environment for the control

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room or the technical support center -- the technical support centers that were mentioned on III.A.2-1.

MR. MATTSON: GDC something, what's the number? 19?

DR. OKRENT: Does that tell me what kind of atmospheric radioactive content --

MR. MATTSON: Yes, the Reg Guide that implements it. I think we might have the right people here. Tom?

DR. OKRENT: Let me put it --

MR. MATTSON: It's a Reg Guide. The Reg Guide has a TID source term in it basically.

DR. OKRENT: The source term is where -- in the containment or outside the containment?

MR. MATTSON: Oh. Inside.

DR. OKRENT: This is the thrust of my question. Have you thought through what you should have outside the containment when you postulate bases for design of either the control room or --

MR. MATTSON: No, we haven't. We would intend that those sorts of considerations would be in the core melt rulemaking proceeding. Good point to consider in that proceeding.

DR. OKRENT: Right now, you're marching ahead with people designing ventilating systems for technical support centers which may not be compatible with what you will want

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for the same kind of considerations you have just mentioned in your rulemaking hearing.

MR. MATTSON: That's true.

DR. OKRENT: And it may not be all that hard to deal with them both at once. I don't know. I mean, it would be awkward if the operators felt --

MR. MATTSON: Yes, we have pulled several small things out of the core melt rulemaking proceeding for implementation now, pending whatever the outcome is of that proceeding -- for example, training for a core meltdown event for the operating crew or venting of hydrogen for a degraded core cooling event.

The bases for pulling some of those things out have been basically it was simple to do, and you ought to do it whether you design overall for the event or not. The Office Directors added another one in the NTOL requirements, a memorandum you will notice which differs in several areas from the Action Plan, but one I will call to your attention.

The Action Plan you are reviwing says for filters in the auxiliary building where they exist, improve them. The Office Directors went further then that. They said, "Do that and where they don't exist, put them in."

Remember filters were put in aux buildings for routine releases for Appendix I, and when Appendix I was finalized and it didn't require filters in some plants, they

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didn't get put in. And the decision was made last week and proposed to the Commission, although the Commission hasn't approved it yet, to go ahead and require filters for the aux building.

I guess what you're saying is, you recommend that specific question of source term for habitability requirements for on-site technical support centers and control rooms as another candidate for consideration outside of the rulemaking?

DR. OKRENT: Well, I asked you what your criteria were, and your first answer was you already had them. But I guess --

MR. MATTSON: We didn't understand question now, but I understand your question. Is that what you're suggesting?

DR. OKRENT: I'm suggesting you should think about this question. You have to judge what you answer is. You know more about what can be done with existing plants and what can be done with new plants and where the ventilation system comes in or other things. I haven't seen a study on it yet, so I would rather not -- let me talk to Tom on the record for a minute.

There must be other criteria that TID inside a containment for habitability requirements, because a ventilation system is put long distances away from the

containment.

MR. MURPHY: I'm Tom Murphy on the NRC staff.

MR. MURPHY: It's my understanding on this item that there are criteria in those two reg guides that are culled out in D2-1 for inside the control room. There are criteria in terms of radiation, radioactivity, and criteria in terms of toxic gases.

DR. OKRENT: There are criteria. The question is, what are you protecting against?

MR. MATTSON: The criteria must not derive from the coremelt accident that causes a breach of containment.

DR. OKRENT: Or even a degraded core that happens to have some isolation valve --

MR. MURPHY: I think the criteria derive from personnel, people protection, not from the source term in the containment.

MR. EBERSOLE: I think the problem is the source term at the perimeter of the occupied environment. Right now, you know, it's a classical accident. We're talking about either a degraded case of containment leakage -- I think we're talking about that primarily, because we've got that pretty well established case of the release into the containment.

But before you -- I heard you mention, Roger, about filters on the auxiliary building. I think you have to recognize that probably mostly likely loss are penetrations, if we're going to talk about containment leakage, whether or not we have an excessive release into the containment. You

have to remember that the penetrations into the primary containment are at the interface.

MR. MATTSON: I don't think the intent is the penetration leakage, that is, containment leakage. The intent is to contain leakage from systems transferring coolant outside of containment, whether they be emergency core cooling or other safety-grade systems or letdown systems that are non-safety grade, as in the case of Three Mile.

MR. EBERSOLE: We're looking for excessive leakage into the auxiliary building. Are you talking about leakage into the auxiliary building?

MR. MATTSON: Leakage out of the auxiliary building, that the ventilation from the aux building be filtered., So what you're doing is turning the aux building into a secondary containment.

MR. EBERSOLE: All right. But now we have to admit that the aux building itself may be contaminated to a greater degree than we have considered in the past, and that alters the problem of the environment of the control room.

MR. MATTSON: Yes. That's Dave's question.

MR. EBERSOLE: Right.

MR. MATTSON: I think I understand the question. We'll go back and consider it. I'm not sure what the answer will be. We will try to keep track of it so we give you an answer.

DR. PLESSET: Could you go on?

MR. PURPLE: Yes. We have actually moved already in that discussion into the 3D and 3E, which are measures to improve worker protection and measures to mitigate off-site dose controls, I should say. I think in the interest of time, given our 5:30 mandate and the fact that chapter four is yet to be talked about in some detail, I won't try to give you an overview here. But if you look through the table of contents and find any item in D and E, we can provide the response.

DR. OKRENT: I have one question. Do you feel a need for more knowledge, which might mean research on what would be involved in decontamination of either farm areas or urban areas, if you had substantial release?

(Pause.)

MR. MATTSON: Two ways to interpret the question. I think I understand what you mean, but let me make sure. You're saying you'd like studies to know how -- to study in advance how to do it so in case you had to do it you had some preparation, or you'd like studies so you'd know how much it costs, so you could factor that into something.

DR. OKRENT: It was more the former; at least so you could do things that needed to be done in the early hours or whatever it was, or days, with a greater degree of background or thinking or whatever it was.

MR. MATTSON: Tom reminds me, one of the things

the President called for in his announcement of December 7 was a study by DOE of ways to reduce public exposure. Now, you could think broadly of that assignment and include decontamination as a method of reducing exposure. Why don't we take the idea and talk to some people at DOE and see if they intend to include it? If they do, your problem is solved, I think. If they don't, we will consider whether we ought to include in the plan stimulation somehow to get them to include it.

DR. LAWROSKI: DOE has prepared I don't know how many reports on so-called remedial actions on formerly used installations, dating all the way back to pre-Manhattan Project dates.

MR. MATTSON: I take the question to be somewhat different: Given a core meltdown, ruptured containment, the passage of a cloud over populated areas and farmland, what are the first steps you take to reduce exposure to people and to return that land to habitability, and can't you or doesn't it make sense to do such thinking now, as opposed to afterwards? Have I got the question?

DR. OKRENT: Yes.

MR. MATTSON: We'll ask it.

DR. LAWROSKI: I included those. They've had some experience.

MR. PURPLE: If there are no more questions on 3D and

E, we can pick up chapter four.

DR. PLESSET: Okay, fine.

MR. SCINTO: I am Joe Scinto. I've been following chapter -- at the outset, I want to indicate that Chapter IV will be substantially revised. Section 4 of Chapter IV is directed principally to the internal NRC organization, and many of the tasks are directed particularly toward the Commissioners and the uppermost management.

At the Subcommittee meeting, I was asked whether the Commission had indicated its acceptance of these task action plans, and I noticed that the task action plans in Section 4 were all derived from statement the Commission had made in the letter to Dr. Press. The objectives were set forth therein.

But the particular steps to implementing them were staff recommendations or staff planning for how they would be implemented. Yesterday at the Commission meeting, the Commission indicated that while it accepted many of those provisions of Chapter Section 4 as goals, the specific steps for implementation are just going to have to be left up to the Commission itself, and Chapter IV is going to have to be revised to reflect that.

That will affect, as I see -- one provision there was some interest in in the Subcommittee meeting, and that is the description of establishing an explicit statement of safety policy for the agency. The Commission indicated that the recognized that that was something that was going to

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have to be done. But the explicit specific steps by which that would be accomplished, they're just going to have to decide that for themselves on a time frame that they are going to have to decide for themselves.

That does leave some sections of Chapter IV which will probably be reorganized somewhat. They will include the section of Section 4.B, which will be principally the staff organizational activities.

With respect to 4.C, which involved the ACRS, I am not clear myself -- and we have not had a chance to get the Steering Committee to address which of these portions of the relationship discussed in there between the ACRS and the Commissioners will just have to be modified in accordance with the Commission's recommendations and which related really more toward the relationships between the ACRS and the staff which we may very well continue in staff action plans set forth therein.

So in short Section 4 is going to be modified substantially to go back to simply statements of overall goals and objectives with very little specific implementing step recommendations.

However, since the ACRS is not a staff advisory committee but is a Commission advisory committee, any comments you may have on the broader questions of how the Commission's organization should be structured -- any

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recommendations you may have on this issue of safety policy -- don't hesitate to provide whatever guidance you feel is appropriate.

DR. PLESSET: Are there any comments from the Committee?

(No response.)

DR. PLESSET: Are you going to make some kind of summation, Roger, because I find myself a little bit at sea. I have a joke I can tell you, but I won't take the time now about this, because I understand that you want us to write a letter.

DR. MOELLER: Mr. Chairman, Harold Etherington is Subcommittee Chairman. Why don't we hear his remarks?

DR. PLESSET: Why don't we let Harold take the floor?

MR. ETHERINGTON: I said I think we can write a letter. It can't go into any great detail because we don't have the priority -- the priorities established, and I think that's probably where the biggest difference of opinion could conceivably come. I have heard a lot of questions asked of the staff. I think they are more or less random. It's not an organized set of questions. I don't know to what extent the Committee would want those items put into the letter -- that we can put in as many as the members wish, of course.

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I think we can write a letter, and for my part, I would say it would be a feeling that there is a comprehensive plan that needs to be developed further, particularly with regard to priorities. It's only a plan to develop plans for these individual items.

I would have no difficulty in writing a letter somewhat along those lines.

DR. PLESSET: Any other comment?

MR. EBERSOLE: I have one here on IV.B.2, which is "Strengthen Enforcement Process." It's sort of a long-term generic question.

IV.B.2.b.1. says to increase civil penalty authority. I've long had difficulty with the significance or the rationale behind imposing the civil penalties on these utilities who immediately turn around and apply the penalty to the rate payers. In my view, it really doesn't constitute a significant penalty unless it's loss of face.

MR. ETHERINGTON: I think there ought to be a lot of loss of face.

MR. EBERSOLE: It's a lot of loss of face, if that's the intent, if that's what's accomplished, but the dollar value is simply absorbed in the rate structure.

If you want to financially damage or penalize the utility, you ought to take it out of the corporate profits, not the rate payers.

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MR. O'REILLY: I haven't seen the law on this subject, but I understand that it's already been approved by various Subcommittees in Congress, and I understand that most states -- the laws, the state laws, prohibit the passing on of fines to the rate payers.

There was a study made of this several years ago, and I think most states prohibit the passing on of penalties, just like you're not allowed to pass on -- if you're a government worker and you get a ticket while you're driving a government car, you have to pay it. Okay? You can't pass it on. But some states do prohibit it.

But where is it going to be dealing in further development of our enforcement criteria with states like this, and we would expect we would end up where I think you want to end up of prohibiting that pass through.

MR. EBERSOLE: Yes. Thank you.

DR. PLESSET: Could I go --

MR. LEWIS: If we're still on the question of whether we should write a letter --

DR. PLESSET: Yes. I'd like to discuss it.

MR. LEWIS: Let me perhaps be the heavy a little bit on this, because I would hope that we don't write a letter because I think we don't know enough to write a sufficiently friendly letter to do Roger any good. That is to say, what we have seen is the beginning of the formation

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of an Action Plan. We haven't seen an Action Plan, and I can imagine alternate scenarios in the language of event tree analysis in which it becomes a truly splendid reshaping of NRC that will satisfy everybody.

I can also imagine scenarios in which it would be atrocious. In all fairness, I hope the latter won't happen, but given the uncertainty on how it develops as the priorities are constructed, as it is meshed into the other things -- important things NRC is doing which may have nothing to do with Three Mile Island but are nonetheless important -- until we see that, I don't see how one could write -- how I could happily sign anything that was not so empty as to lead to the possibility that it's going to be written or read as negative. And I worry a little bit about that.

DR. PLESSET: I was going to say it not as elegantly. You and I were in the minority before, and we may be in the minority again. We have a draft. Maybe we can make a draft letter.

(Laughter.)

MR. LEWIS: Now, I know why you're Chairman.

(Laughter.)

DR. PLESSET: Dave?

DR. OKRENT: Well, it seems to me a compromise position could be a short letter saying we have looked at

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the first draft of the Action Plan. We expect to look at the second or third draft such as it may be at the February meeting, and when the plan is in sufficiently finalized form, we will provide our comments -- finalize is not the right word -- but just to tell the Commissioners we haven't signed off.

DR. PLESSET: Bill?

PROFESSOR KERR: In connection with the current atmosphere of Lessons Learned, I learned a valuable lesson from a recent DOE report in which there were pages with only the following words: "This page deliberately left blank."

(Laughter.)

PROFESSOR KERR: It therefore seems to me we might follow that and write a letter saying, "We are unable to write a letter."

DR. PLESSET: I'd sign that.

DR. OKRENT: I thought that's what I said.

(Laughter.)

DR. OKRENT: In committee-ese.

MR. LEWIS: I hope what I said hasn't been misread. I'm trying to be helpful, but I'm concerned that we don't yet know enough to write something that would be helpful. To force us into writing something to which we could all agree might be a disservice to NRC rather than a service, and I would not like to get involved in that.

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MR. ETHERINGTON: The letter could, in fact, say we have no violent opposition to a plan, and that might be useful.

MR. LEWIS: But I do.

DR. PLESSET: I think his point is he might have when he knows more about it and when it gets beyond this stage.

PROFESSOR KERR: The only reservation I have about Dave's suggestion or even about Harold's is I do not want us to be misunderstood, that we think this is a -- well, that I think this is an Action Plan. I don't think it is.

It is a possible beginning, and I think this is what you are saying, Harold. By not writing a letter, we give somebody the impression that it's an Action Plan.

Maybe we won't. I think we won't, probably.

DR. PLESSET: Dade, did you want to make a comment?

DR. MOELLER: I thought Dave's suggestion might be more appropriate than Harold's, because if we don't do anything, that might be misinterpreted.

DR. PLESSET: I think it would be pretty clear what that meant.

DR. MOELLER: Well, Dave's, though, is more of a statement that we interacted. We've seen the draft, and there's not enough there to make comments, definitive

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comments at this time.

MR. LEWIS: We look forward to its further development for the assignment of priorities and all that.

MR. MATTSON: If you don't write a letter at this point. I think the record will show that you had diversity of what you think is going on, and it's going to be hard to go ahead as a Committee.

DR. OKRENT: I have a problem.

DR. MOELLER: The discussion today has shown that we have a lot of questions.

DR. PLESSET: Yes. Any other comment?

MR. MATHIS: It seems to me this is a first draft of a compilation, if you will, of items that have resulted from the various investigations of Three Mile Island. It needs a lot of refining. It needs priorities, and then I think we could comment on whether or not we feel there are omissions that need to be added, or are there items in it that are unnecessary, and that we will look forward to seeing later drafts -- something of that nature -- and not leave it just hanging in mid-air.

DR. PLESSET: Any other comments. Ray?

MR. RAY: No.

DR. PLESSET: Dade?

DR. MOELLER: I guess the last comment is, it seems that their schedule is totally unrealistic. I guess

it's a schedule that's being imposed upon them, and I sympathize with them, but I don't see how they possibly can have, you know, a final plan for March the 1st or whatever the date is.

MR. RAY: Why don't we write a letter that says we note the first draft of the Action Plan, and we find it very interesting?

(Laughter.)

MR. LEWIS: It generated lively debate.

DR. PLESSET: Well, any other comment?

We will have to face up to this question of what kind of letter, what it says or what it doesn't say.

MR. MATTSON: Gentlemen, let me say again, the Atomic Industrial Forum told the Commission yesterday that it was costing the owners of the four construction plants, $15 million a month without replacement power for those four units.

And just so there is no uncertainty, I think it is that lost capacity, that lost money to rate payers and citizens of this country that required us to move with due dispatch. There are people who literally have not seen their families on weekends for months associated with this endeavor -- people who have been away from home, been away from home for the holidays, things like this, to accomplish this Action Plan. So there is no misunderstanding of the

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urgency with which we view getting on with this program.

I fully appreciate that you do not have all the information in front of you. I've done everything I can to get the information to you. I'll keep getting information to you. You have to respond to it the way you are able to respond to it.

MR. LEWIS: Roger, there are those of us who have never understood the logical basis for the pause anyway, and therefore, the issue of licensing, the near-term operating licensing, as a matter of urgency for other reasons.

And the coupling of it to doing a bad Action Plan which may become the Bible for NRC at least for the next couple of years -- it would be well not to do that badly, because of the unfortunate, and I think politically in my own view -- political coupling, politically motivated coupling, between the licensing pause and the development of the Action Plan.

So, I would hate to go along with a not-yet-finished Action Plan under the urgency of the licensing.

MR. MATTSON: I can tell you why the coupling was there. I guess I shouldn't do it on the record, but it is 180 degrees different than what you suggest.

MR. LEWIS: Oh, really?

MR. MATTSON: Yes, it is.

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DR. PLESSET: Bill Kerr?

PROFESSOR KERR: Roger, I can't speak for the rest of the Committee, but the concern I have with the Action Plan is I want to be as certain as I can, and I want the Committee to be certain as we can, before we approve something -- that we are convinced that it improves safety. Just doing something is not enough.

I apologize for telling you this. I know you know it, but we are talking about some fairly drastic changes in operational philosophy and equipment. We are going in and revising plants. We are trying to do it in a period of time which is so short that I am personally convinced we cannot do a good job.

That concerns me -- that we have got ourselves in a position where we have to do a poor job. Maybe not a lousy job, but I am sure we have to do a poor job.

MR. MATTSON: This is the most valuable comment I have heard today. Why don't you put it in a letter and send it to the staff and the Commission?

PROFESSOR KERR: I've written a letter to my colleagues on the Committee which says that, and I am quite willing that it be made public if they choose to do so.

I really am concerned about it.

DR. PLESSET: Well, I think that your letter that you referred to seems like a good letter to me, and should be shared with the world, Bill.

PROF. KERR: It is not a Committee's letter, as far as I'm concerned.

DR. PLESSET: Not yet, but they can look at it.

I think it might be appropriate, unless Harold Etherington wants to make a final comment --

MR. ETHERINGTON: I have no further comments.

DR. PLESSET: -- that we have a ten-minute break and then go on to the last item.

e-17 (Whereupon, at 5:25 p.m., the meeting was adjourned.)