

NUCLEAR REGULATORY COMMISSION

ORIGINAL

In the Matter of:

PUBLIC MEETING

SAFETY ISSUES

DATE: July 17, 1980

PAGES: 1 thru 60

AT: Washington, D. C.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
PUBLIC MEETING
SAFETY ISSUES

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Nuclear Regulatory Commission
Room 1130
1717 H Street, N. W.
Washington, D. C.

Thursday, July 17, 1980

The Commission met, pursuant to notice, at 9:00 a.m.

BEFORE:

- JOHN F. AHEARNE, Chairman of the Commission
- VICTOR GILINSKY, Commissioner
- JOSEPH W. HENDRIE, Commissioner
- PETER A. BRADFORD, Commissioner

NRC STAFF PRESENT:

- LEONARD BICKWIT
- HAROLD DENTON
- FRANK SCHROEDER
- C. KNEIL
- H. GEORGE
- AL KENNEKE
- CHRIS GRIMES
- W. MINNERS

DISCLAIMER

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P R O C E E D I N G S

1
2 CHAIRMAN AHEARNE: The Commission meets this morning
3 to take up a report on new unresolved safety issues. In the
4 annual report to Congress we indicated the status of the
5 previously identified unresolved safety issues and in
6 addition we said that a number of safety related issues came
7 to light as a result of the TMI two accidents and other
8 events but we had not been able to do the kind of a review
9 necessary to identify and evaluate the new issues. We listed
10 an area of possible sets of areas in which such issues might
11 arise and then indicated that we would come back to the
12 Congress with a special report describing the review and any
13 new issues.

14 This morning we have a Commission paper submitted by
15 Mr. Denton addressing exactly that question, what are new
16 issues proposed as a result of the reviews, it identifies the
17 review process and then ends up recommending a set.

18 Harold, I can't in any way comment that we will send
19 this on to the Congress at the present time but I think it is
20 entirely appropriate for the Commission to address your
21 recommendation.

22 MR. DENTON: Thank you.

23 I have with me this morning Mr. Frank Schroeder and
24 Mr. Carl Kneil. Carl is the chief of the Generic Issues
25 Safety Branch. This is the branch which was previously under

1 Steve Hanauer on an interim basis last year during that
2 temporary reorganization.

3 Just to start I would like to show a slide or two
4 that is not in the handout. Some questions came up during
5 Mr. Dircks' presentation about what does unresolved mean and
6 how many have actually been issued and completely implemented.
7 I have just summarized on this slide and the next two the
8 status of the program up-to-date.

9 These are three safety issues for which all mile-
10 stones have been completed and where the report has been
11 produced that has the technical criteria established and the
12 criteria have been reviewed plant by plant and findings made
13 on all the plants or modifications made as necessary for
14 these plants to perform the technical resolution of those
15 three. So in those three I consider those technical issues
16 completely resolved and implemented.

17 CHAIRMAN AHEARNE: The far right hand column,
18 Implementation to Plants.

19 MR. DENTON: That means that the plants have made
20 the changes, have been reviewed and found in conformance with
21 the criteria.

22 CHAIRMAN AHEARNE: I see. And we have actually
23 reviewed the implementation.

24 MR. DENTON: Yes. That is probably what-we should
25 use the word "unresolved" for but "unresolved" not locked in

1 early to mean a technical resolution as opposed to a plant by
2 plant resolution.

3 CHAIRMAN AHEARNE: Yes.

4 MR. DENTON: This slide shows those issues which
5 are near technical resolution or that the staff has issued
6 reports setting forth criteria, they have gotten comments on
7 the proposed technical resolution but they have not been
8 implemented or reviewed plant by plant.

9 How many are there altogether, Carl?

10 MR. KNEIL: In this category, I don't know exactly.

11 MR. DENTON: So there are six on this slide and we
12 can see the next slide two more so there are eight then
13 altogether for which the staff has issued technical reports
14 proposing criteria for resolving the technical issue.

15 CHAIRMAN AHEARNE: Now some of those you don't have
16 a staff report listed.

17 MR. DENTON: Those are all near resolution, either
18 we have issued a report for comment or we are very close to
19 issuing a report.

20 In some cases you will issue a case for comment, in
21 other cases you will just issue a final report.

22 MR. KNEIL: Right. Most of the new issues will be
23 handled on a report for comment basis. Some of the older
24 issues it is deemed not necessary by virtue of the fact that
25 we have already been in communication with just about

1 everybody or we have even partially implemented it during the
2 process of resolution.

3 MR. DENTON: So there are six or eight that are near
4 or in the chain somewhere just to give you a feel for the
5 status.

6 With that overview let me turn the presentation over
7 to Carl to discuss or to Frank.

8 MR. SCHROEDER: I just wanted to give a little more
9 background. The Chairman has already indicated that we have
10 this commitment to the Congress to get the supplemental
11 report down in July. Beginning about mid May we asked the
12 newly formed Generic Issues Branch with the job of working
13 through the candidate issues and coming up with a systematic
14 review and identification of issues that we felt met the
15 definition which you will remember was carefully reviewed by
16 the Commission, the definition of unresolved safety issues.
17 That group completed their work and the recommendations were
18 reviewed by the other divisions in NRR and by Mr. Denton and
19 we put it all into the paper.

20 What we plan to do today is to have Carl describe
21 for you the process we went through limiting a rather long
22 list of candidate issues down to the six that we have
23 selected and also say a word or two about each of those
24 issues. The task action plan document which really sets out
25 in some detail exactly the scope of the issue and the

1 subtasks involved in it, these have not been prepared yet for
2 these issues but as soon as we have agreement that they are
3 unresolved safety issues we will embark on the preparation of
4 those plans.

5 MR. SCHROEDER: I would propose that you assume that
6 we have read the paper in the sense that the paper goes into
7 fairly elaborate detail on the procedure you used to get
8 there.

9 Before I turn it over to Carl I would just like to
10 stress we are on an extremely tight schedule if we are going
11 to get this finished and printed and down to the Congress by
12 the end of July.

13 CHAIRMAN AHEARNE: Yes. In a counter comment I will
14 point out that I recognize that but I am still more
15 interested in being satisfied that where we end up and if
16 necessary for myself I would not mind sending a note to the
17 Congress saying that it has taken us longer than we thought.

18 MR. KNEIL: In addition to myself this morning we
19 have Hank George and Chris Grimes of the Generic Issues
20 Branch who have participated extensively in this process and
21 they will help in answering the questions concerning the
22 issues. We also have Warren Minners of Roger Mass' on staff
23 who also participated in this process.

24 My presentation was to cover the definition of an
25 unresolved safety issue selection process used for new USIs,

1 the implementation of the selection process and the
2 discussion of the six new USIs proposed and a short
3 discussion of the seven issues for which we conclude that
4 further study is needed before a decision is reached.

5 I take it that you would rather have the emphasis on
6 the latter part of the presentation so I will hurry through
7 the first part. If there is any question that is raised, I
8 would appreciate your stopping me.

9 MR. SCHROEDER: We might skip offer the definitions.

10 MR. KNEIL: Well, it might help to focus on what the
11 issue is.

12 CHAIRMAN AHEARNE: One thing the definition might do,
13 after having wrestled so long on the definition,
14 unfortunately anything that takes that long to develop turns
15 out to be hard to interpret. (Laughter)

16 Why don't you tell us what you think it means.

17 MR. KNEIL: Can we have the first slide.

18 The definition is presented here in this slide and
19 it is in your handout. Let me highlight the parts of it that
20 I think will help interpret it. The matter affecting a
21 number of plants -- so it certainly can't be one or two
22 plants -- imposes important questions concerning the adequacy
23 of existing safety requirements. Final resolution has not
24 yet be developed. If you have a final resolution, it is not
25 a USI. If the final resolution can be developed in a matter

1 of a few months, then we don't put it in the category of a
2 USI. It involves conditions not likely to be acceptable over
3 the lifetime of the plants affected. In other words, we
4 anticipate that the resolution would involve some kind of
5 either hardware or procedural change to the plants affected.

6 Slide 2. This amplifies a little bit on the matter
7 of imposing important safety questions.

8 COMMISSIONER GILINSKY: Let's see why is this an
9 issue that affects a number of plants?

10 MR. KNEIL: Well, it is a generic issue. That was
11 the definition we came up with. It is our definition.

12 COMMISSIONER GILINSKY: What happens to things that
13 apply to one plant?

14 MR. DENTON: We resolve them at one plant. It is a
15 very unique feature that is taken care of at that plant.

16 COMMISSIONER GILINSKY: We often do things that are
17 considered okay for awhile but not sufficiently -- well, we
18 would not accept for the lifetime of the plant. Those are
19 just kept in the docket and kept track of.

20 MR. DENTON: They are worked on in that docket, yes.

21 COMMISSIONER GILINSKY: There is no listing of
22 issues of that sort anywhere, is there?

23 MR. DENTON: I remember we had a list of 150 or 200
24 possibilities and this was a definition used to screen them
25 down. We still have this list of A, B, C and D candidates

1 which did not make it under this definition.

2 CHAIRMAN AHEARNE: Those are all generic.

3 COMMISSIONER HENDRIE: I think, Vic, what happens if
4 you have a problem area that is unique to a particular case,
5 say it is something site connected, there is something odd
6 about a particular site and you are dealing with it, maybe it
7 has got a -- I don't know -- an ellipsoidal dam and people
8 are scratching their heads and saying should it be triangular
9 for the long pull or something like that. If there is a
10 situation on that specific unique case issue that is
11 comparable to this, it would be in the category that the
12 applicant appears to have presented a workable and
13 satisfactory solution from the safety standpoint at least for
14 some years of operation but the staff would like to think
15 about it a little further and see if they really like it for
16 the 40 year term of the plant and if the plant goes ahead on
17 that basis and there is that kind of item, and I cannot
18 remember very much many like that, it is the sort of thing
19 that will get written into the license condition saying by
20 after three years why the applicant will come back with a
21 further analysis of his ellipsoidal dam to either show that
22 it is good or not.

23 The staff tends not to just, you know, note things
24 like that maybe in a line or two in the safety report and
25 then sort of leave it to happenstance. That is the kind of

1 thing that people will carry down into the tech spec some
2 place or the attachments to the tech spec so that it is a
3 visible item. So I think on that plant unique ones that
4 there are ways that so far as I can remember there are a few
5 like that on the one hand and on the other they do get pulled
6 into the license conditions. In fact, I can't think of any
7 that don't and I can think of very few of this category.

8 MR. DENTON: I remember one, for example, that
9 requires inspection of the protected berm for flood
10 protection after floods at a given level and that is put in
11 as a surveillance condition and so that if they ever have
12 floods that reach that then they have to send reports in. So
13 they are tying into some sort of reporting requirement by the
14 licensee at some future date.

15 COMMISSIONER HENDRIE: That kind of sort of
16 maintenance surveillance I think certainly. The staff tends
17 to hang tough on an item if it is just unique to a case. The
18 kind of items we are dealing with here have the
19 characteristic that there do appear to be workable interim
20 ways to handle it. There is concern about the long range
21 implications and it does apply to a group of plants.

22 CHAIRMAN AHEARNE: Thank you.

23 MR. KNEIL: The important questions concerning the
24 adequacy of existing safety requirements were judged to be in
25 two categories. The first category is one to compensate for

1 possible major reduction and degree of protection and these
2 are things like steam generator tube failures that usually from
3 operating experience we find are pipe cracks or like that or
4 the second category is to provide a potentially significant
5 decrease in the risks to the public health and safety. These
6 are new ideas or ideas that are generated from operating
7 experience where we think new criteria could be established
8 that would add significantly to public safety.

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COMMISSIONER GILINSKY: Well, wait a minute. Two sounds like something that we've thought of that could increase safety at some reasonable cost. That does not sound like an unresolved safety issue.

MR. SCHROEDER: It is unresolved in the sense that on the basis of further study we have to make a decision whether it is worth adding as an additional requirement to achieve that significant increase in safety.

COMMISSIONER HENDRIE: I guess what is unresolved about it is whether they implemented --

CHAIRMAN AHEARNE: Basically I don't think that we ought to be asking staff to now defend the position that we told them to take. I mean this is where the Commission came out. We told them to use the criteria.

COMMISSIONER GILINSKY: Time has gone by.

CHAIRMAN AHEARNE: It's all us.

COMMISSIONER GILINSKY: We're all wiser and smarter now.

CHAIRMAN AHEARNE: Was this part of the --

MR. SCHROEDER: Yes.

COMMISSIONER HENDRIE: Yeah, I can remember some people identifying some items.

CHAIRMAN AHEARNE: When did we do this?

COMMISSIONER GILINSKY: We eroded our way into it, I think.

1 MR. DENTON: Taking that as guidance, let's move to
2 part 2. (Laughter)

3 COMMISSIONER HENDRIE: Seventy-eight, wasn't it?

4 MR. DENTON: Yes, seventy-eight.

5 COMMISSIONER HENDRIE: I think it was pre-Three Mile.

6 MR. DENTON: It was December '78. It was the first
7 Annual Report that had to be --

8 COMMISSIONER HENDRIE: It was -- we struggled between
9 the first and second Annual Reports to come down from 130 or 200
10 or whatever it was to some rational --

11 COMMISSIONER BRADFORD: But it was clearly a compromise
12 between that which was clear and that which worked and as we work
13 our way through this if it turns out that it can improved upon I
14 would not be adverse to doing that at the end. I really would at
15 the moment.

16 COMMISSIONER GILINSKY: Let me just ask in particular
17 where you would put a particular item. I've taken an interest
18 in hydrogen control.

19 Would that be a 1 or a 2?

20 MR. DENTON: It is in this batch that we are proposing
21 as unresolved safety. I will let Carl describe it.

22 MR. KNEIL: That is a good question. In the ultimate
23 sense the two kind of merge but I think it is a 2 because we are
24 establishing new criteria. It would be changing criteria to
25 handle the hydrogen problem.

1 COMMISSIONER GILINSKY: Well, it certainly would involve
2 an increase in requirements over what it had been before. On the
3 other hand it is to compensate for reduction, you know, what we
4 would have realized as a reduction in the degree of protection
5 that we thought we would have. So I am just wondering.

6 MR. KNEIL: That is right. It puts it in both cate-
7 gories in that sense.

8 COMMISSIONER GILINSKY: Do these ever come into play,
9 I mean, beyond this creeping --

10 MR. DENTON: Well, he has a decision tree that he wants
11 to show and these are the two branches and it could go down both.

12 MR. KNEIL: It is a bit of an artificial distinction.
13 I don't think it is of overwhelming significance even though I
14 have included it here partially because of tradition.

15 COMMISSIONER HENDRIE: If you can get to the decision
16 tree, why I think you are safe. They will never chase you through
17 that forest. (Laughter)

18 CHAIRMAN AHEARNE: There, you have got him, Carl.
19 (Laughter)

20 MR. KNEIL: Can we have the next slide, please.

21 COMMISSIONER GILINSKY: Talk on any subject except
22 one. (Laughter)

23 COMMISSIONER HENDRIE: In fact, I think you have already
24 done it on Seabrook. (Laughter)

25 MR. KENNEKE: You better copy in the staff papers.

1 CHAIRMAN AHEARNE: Go ahead.

2 MR. KNEIL: The next slide is an overview of the review
3 process that was used here. We have identified the issues, we
4 have done an initial screening and then we have used that sheet
5 of paper you have just discussed to evaluate the safety signifi-
6 cance and the output has been in one of three categories, either
7 it is a proposed USI or it is not a USI or it has been relegated
8 to a further study before a decision is made.

9 CHAIRMAN AHEARNE: All right.

10 MR. SCHROEDER: I would like to say our intent when we
11 say a further study is to try to do enough additional looking at
12 those issues between now and the time we file the 1980 Annual
13 Report to have made a decision whether it is or is not.

14 MR. KNEIL: The next slide, please, and that is in the
15 paper. I assume you have all read it.

16 CHAIRMAN AHEARNE: Right.

17 MR. KNEIL: This is the initial screen criteria.

18 COMMISSIONER HENDRIE: Quick, turn the page.

19 MR. KNEIL: Okay.

20 CHAIRMAN AHEARNE: Just as a general point, when you
21 come in here with a briefing if you insist on putting in
22 everything that is in the paper it undercuts getting the paper
23 read.

24 MR. KNEIL: Okay.

25 MR. DENTON: You mentioned, Carl, the sources.

1 COMMISSIONER HENDRIE: Well, you also have to recognize
2 that some Commissioners are more apt to read the paper than
3 others. (Laughter)

4 We could make an arrangement, John, where you could
5 just automatically come ten minutes late and the rest of us could
6 spend the ten minutes getting up to speed. (Laughter)

7 MR. DENTON: I think it would be helpful just to
8 reiterate Carl's sources that you screen.

9 CHAIRMAN AHEARNE: All right.

10 MR. DENTON: Don't change the slide, just say which
11 ones you picked.

12 MR. KNEIL: I was going to cover that a little bit
13 later. Let me finish this and I will cover that.

14 This just shows that in considering the risk we
15 considered both the probability of the event and the probability
16 of the loss of mitigation or termination capability and the
17 consequences -- not one of those, all three factors were
18 considered.

19 COMMISSIONER GILINSKY: Let me just take you back to
20 the previous life to ask you about just the last one. You say
21 the issue or recommendation requires a policy decision rather
22 than a technical solution. What do you mean by that?

23 CHAIRMAN AHEARNE: Well, he gave several examples of
24 that.

25 MR. KNEIL: The position paper.

1 MR. SCHROEDER: I think our main intent is that the
2 very nature of the generic issues program, the one involving
3 safety issues was to develop technical recommendations for
4 solutions to the issues.

5 CHAIRMAN AHEARNE: Let me just jump in if I can. A
6 lot of these things came up by all of the recommendations in the
7 action plan they went through. Now some of the recommendations
8 in the action plan. For example, achieve a single interim
9 location for the Commission. That is the policy issue. I think
10 what they are trying to do is to construct a formal mechanism to
11 say here is this large block of input, now how are we going to
12 lead out to narrow down to a --

13 COMMISSIONER GILINSKY: What was the candidate for an
14 unresolved safety issue?

15 CHAIRMAN AHEARNE: Well, the thing is they took all of
16 the items from the action plan and that is one of the recommenda-
17 tions in the action plan. There are supposed to be responses to
18 Three Mile Island and that was one of them and there are a whole
19 host of things.

20 MR. KNEIL: The next slide is in your handout but it
21 is not on the screen. It is a detailed kind of qualitative
22 logarithm we went through to select the USIs. It is not quite as
23 complicated as it looks because it sort of lines the questions
24 are very similar in different categories. Principally you come
25 in at the top with the sources that we used and the sources of

1 issues that we used are the TMI action plan. Everything that was
2 mentioned in ACR's letter after January 1979, either in ACR's
3 letter or report, abnormal occurrences and other issues that were
4 suggested by the staff over the past year or so. These were
5 screened using the criteria that we showed on the screen a few
6 minutes ago initially and the initial number of issues was like
7 425 and after this initial screening using those eight criteria
8 we were reduced to 44 issues and the 44 issues then were
9 subjected to this question list depending on which category they
10 went in. Your left hand side of the paper is essentially the
11 Category 1 that Commissioner Gilinsky asked about and the right
12 hand side is Category 2.

13 CHAIRMAN AHEARNE: Carl, let me ask you sort of a
14 question. This is a very mechanistic approach. Here comes all
15 these things in and there is this process it turns out and at the
16 bottom out comes some things. Did you also have, at least some of
17 you guys who are long term experts in these areas, just looking
18 at it from the standpoint of intuitive reasonableness that it
19 looks about right, that these are the ones that ought to be there
20 and those are not ones that should be there?

21 MR. KNEIL: I think we did that both in the initial
22 selection process and in the review process within the staff.
23 We got a group of about nine people together after presenting
24 the division directors and assuring ourselves that the nine had
25 a good representation in the areas that we needed and we assigned

1 the different candidate issues of the 44 total for individuals
2 to answer the questions and write them out. Then we convened
3 this panel of nine people.

4 CHAIRMAN AHEARNE: So there is sort of a logic check
5 then.

6 MR. KNEIL: Right.

7 We convened this panel of nine people and discussed
8 -- each one of them presented their reasoning and that was
9 subjected to criticism in this panel which met for like a day and
10 a half, I think it was. These were then presented to the division
11 directors for their comments.

12 MR. SCHROEDER: I think it is fair to say that you would
13 expect the division directors in looking at the product of this
14 group would look at it more from the point of view you suggest
15 than from walking through the details of the process.

16 CHAIRMAN AHEARNE: Sometimes it is even in computer
17 codes. It has been magnificently developed. Sometimes the answer
18 doesn't make sense.

19 MR. KNEIL: Could I have the next slide, please.

20 Having dispensed with the process, you have the six
21 issues that we are proposing at the Commission, concur and
22 support. Five of the issues are from the TMI action plan, the
23 first five. The sixth is an issue that has not been in the TMI
24 action plan. I say it is from the TMI action plan. It may have
25 also been addressed in the ACRS letters and reports. Of course

1 there is a lot of duplication there.

2 The first issue is a long term upgrading of training
3 and qualifications of operating personnel. The objective here
4 is the long term development of new regulations and regulatory
5 guides to provide improved requirements for training and quali-
6 fication of reactor operators, senior operators, ship supervisors,
7 auxiliary operators, technicians and possibly other operations
8 personnel and we intend to do this using staff and contractor
9 resources to develop these criteria through studies.

10 CHAIRMAN AHEARNE: Now I am certainly quite heartened
11 by essentially the sense that there are more personnel related
12 issues identified but I am still a little uneasy about are they
13 equivalently focused -- as equivocally focused so to say as
14 previous sets of issues.

15 MR. DENTON: They are not yet. We don't have the
16 detail.

17 CHAIRMAN AHEARNE: Do you expect to be able to focus
18 that --

19 MR. DENTON: We would focus on that as well. We would
20 write an action plan and pull together the various elements that
21 had to be done and we didn't focus some of the early action items
22 all that well like the pipe cracking it turns out we will always
23 be looking at pipe cracking. So we do need to focus it down on
24 what the nearer aspect is and so it has end point.

25 COMMISSIONER GILINSKY: You know, I have a bit of an

1 opposite reaction. Obviously this is a terribly important area.
2 We are all committed to upgrading training and qualification of
3 operating personnel. Somehow it does not strike me as the kind
4 of thing that one used to consider an unresolved safety issue
5 and not merely because we were not sensitive enough to upgrading
6 aspects of plants. It used to be technical issues, generally
7 narrower issues to which one didn't know the answer and this is
8 heading in the direction of a large, all encompassing --

9 CHAIRMAN AHEARNE: It is not enough of such reaction.

10 COMMISSIONER GILINSKY: I mean this obviously has got
11 to be on some list and it has to get very high priority but I am
12 not sure that this is the list.

13 CHAIRMAN AHEARNE: That is a better way of saying it.
14 I don't know.

15 COMMISSIONER GILINSKY: I mean, it seems to me there is
16 some value to keeping this list to technical issues over which we
17 are scratching our heads and accepted some interim solutions.

18 CHAIRMAN AHEARNE: For example, I would have thought
19 that that is really a large part of what your operator branch is
20 trying to do, is to go through the operating and examination of
21 what is required and how do you improve it, what kind of qualifi-
22 cations -- the whole host of things, what was it, 330(e), that
23 SECY paper.

24 COMMISSIONER GILINSKY: Yes.

25 MR. DENTON: Well, we had thought about the same sort

1 of concern in connection with, for example, where there is a
2 rule making going on and it is obviously getting -- I guess we
3 saw some of these, whether you think of it as the dog or the tail
4 of the issue and we would intend that the action plans subsume
5 all the -- I mean the issues resolving this, bring in the
6 research that is being done and operator training, the things
7 that the Division of Human Factors is doing and it would be a
8 way of keeping track of all of it in one place.

9 CHAIRMAN AHEARNE: Well, let's say that we agree, the
10 Commission were to agree that that -- let's take number one --
11 that that is an unresolved safety issue. What in the way of an
12 organization or program will then be developed?

13 MR. DENTON: The way we are handling these is that they
14 have task managers whose job it is to make sure that the imple-
15 mentation schedules that are developed for each one are met.
16 Now the actual --

17 CHAIRMAN AHEARNE: Where will that task manager be
18 located?

19 MR. DENTON: He works for Carl so he is the project
20 manager so to speak on that. Now the actual technical work is
21 done back in any of the technical branches through contract
22 assistance, through research and what have you. IN fact, most
23 of the task action plans for all the major work other than the
24 direction of a program is done in some other place.

25 CHAIRMAN AHEARNE: Why isn't that, for example, though

1 one of the principal efforts of Paul Collins?

2 MR. DENTON: It certainly is and that would be, it would
3 continue to be.

4 MR. KNEIL: He would be on concurrence for any technical
5 resolution.

6 MR. DENTON: With a matrix organization you have got a
7 project manager who makes sure the schedules are met.

8 COMMISSIONER HENDRIE: It kind of sounds like we are
9 converting either all or a good part of Collins' scope of work
10 for the next couple of years and that in effect becomes A45 with
11 task action plan and all. I am not sure that that is necessarily
12 bad but I don't know.

13 MR. DENTON: Well, we wrestle with this on each one.
14 Do you leave the issue like ATWAS in the Reactor Systems Branch
15 at which time you don't ever get the product out perhaps or do
16 you try to set up a project manager even though another branch
17 does the bulk of the work? And so it is somebody whose job is
18 to pull all the pieces together. And I guess the kind of rule
19 we've used is totally within one branch and does not interact
20 with outside groups. We tend to leave it in that branch but if
21 you get into areas where Research is doing work in this area,
22 Standards is writing --

23 COMMISSIONER HENDRIE: You have a task manager, sure.

24 MR. DENTON: So then you get all the pieces that cut
25 through all the offices and keep up with it on an overall basis.

1 COMMISSIONER GILINSKY: Maybe then it is the overall
2 title of unresolved safety issues that --

3 COMMISSIONER HENDRIE: That has always been an unfor-
4 tunate designation for this category of things, I must say.

5 COMMISSIONER GILINSKY: Well, there are some things, I
6 think, which fit naturally under that title but this one does not
7 seem to me to fit. It is something that we are going to be
8 working on for many years and be continuing to improve the
9 training qualifications of operating personnel probably for a
10 very long time, in fact forever.

11 MR. SCHROEDER: We have a similar example of that kind
12 of difficulty in one of the present -- specifically the USI on
13 systems interaction because now we have created an organizational
14 entity specifically to work on that problem.

15 COMMISSIONER GILINSKY: Yes.

16 MR. SCHROEDER: I think what we are going to be doing
17 there is to try to delimit the present unresolved safety issue
18 to reach a conclusion and turn further efforts over to the branch.

19 COMMISSIONER GILINSKY: I guess so.

20 CHAIRMAN AHEARNE: Let me, I guess, ask my question a
21 different way then. You told me what would happen if we identi-
22 fied it as an unresolved safety issue. What difference would
23 happen if we didn't?

24 MR. DENTON: I guess internally it would be kept up
25 with in the Division of Human Factors. Now this particular one

1 would be resolved at about the same level but you would not have
2 a rigorous look at it. I would not have one group to go to that
3 asked for the states of all these unresolved safety issues and
4 someone I can hold --

5 COMMISSIONER GILINSKY: Well, that certainly sounds like
6 a good idea. I guess it is the broadening of the category of
7 unresolved safety issues that I wonder about. I mean that is
8 what does strike me as an unresolved safety issue until we have
9 come down with a resolution that we all agree on and decided what
10 the requirements ought to be and so on.

11 CHAIRMAN AHEARNE: It almost sounds like you are saying,
12 Harold, that at least from your view, and I am not saying it is
13 wrong, that in your view that you will use this set of items as a
14 way of tracking what are the highest priority tasks as far as
15 NRR would be concerned and therefore you would now want task
16 managers for each of those tasks so that you would insure that
17 you have a mechanism to turn to, what's the status to keep track
18 of.

19 MR. DENTON: That plus it does have a formal status
20 where the Board is requiring that we discuss in each license the
21 status of compliance with the unresolved safety issues.

22 COMMISSIONER HENDRIE: It does have an accent associated
23 with it in the staff affairs which if it is designated on its
24 list. I would hate to, however, find us using that fact as, you
25 know, a significant reason to put something on the list which

1 might otherwise not be there.

2 COMMISSIONER GILINSKY: I guess I would this thing high
3 priority safety improvement program or something like that.

4 CHAIRMAN AHEARNE: Well, that sounds like what Harold
5 really is using the list for and it might be the right approach.

6 COMMISSIONER GILINSKY: Well, I guess you had that going
7 back to those two categories of issues.

8 CHAIRMAN AHEARNE: Yes. At least to some extent going
9 back into at least for someone who was not involved in it, just
10 reading the legislative history that there was some flavor that
11 that was the purpose, was to try to identify what are the high
12 priority items that ought to be focused.

13 MR. DENTON: And I think it is consistent somewhat with
14 PPG guidance to focus your efforts on the highest priorities for
15 reducing the risk. We always have hundreds of possible ideas
16 around and it is a question of how do you assure the resources
17 are focused.

18 I think, too, we were deliberately trying not to think
19 of operator training as different than hardware.

20 COMMISSIONER GILINSKY: No, I understand that, but that
21 one is unresolved in a different sense than something like a
22 technical issue where you just don't know what the answer is.

23 MR. DENTON: But we do have several studies out and
24 contract studies where we are asking for guidance on how to
25 improve this whole area and it is kind of like a small research

1 program starting now.

2 COMMISSIONER HENDRIE: Let me ask, because it is the
3 kind of, you know, upgrading of the training and qualifications
4 of operating personnel, could be a permanent title in a list of
5 things that will always be of significance for safety regulation
6 in this industry as well as others.

7 MR. DENTON: To improve quality assurance.

8 COMMISSIONER HENDRIE: Just like your items which are
9 solely of that character and don't have a shorter time dependent
10 element in them. I would hate to put on the list because then
11 they would become permanent occupants of the unresolved safety
12 issues list. You know, I think one of our goals ought to be to
13 drive that list to zero and keep it there.

14 Now the question then is, do you have some sense of the
15 set of actions which would constitute completion of task A45, not
16 in detail obviously, you don't have the task actionplan, but I
17 think it is useful to have some sense of how far down the line
18 this upgrading process one would feel one would have to go before
19 you would be willing to say, good, that's no longer a USI, that
20 now passes into the category of a number of other things, things
21 we have to watch as regulators in this industry.

22 MR. DENTON: I couldn't agree more. I think they have
23 to be defined with end points and do-ables, otherwise they would
24 take on a life of their own like pipe crack studies and be always
25 just looking at it.

1 MR. GEORGE: Well, if I can add just a few words to
2 that. It is difficult, I guess, from just looking at the title
3 of this issue to understand what was intended. It was not
4 intended to encompass just the long term continuing process of
5 upgrading, it was more the establishment of criteria to factor
6 into the operator training program a lot of the lessons learned
7 from TMI. If there are specific questions that are being
8 considered in this issue, how to factor in the event sequences
9 of WASH-1400 into simulator training. You know, there are
10 specific questions like that which are part of this issue. The
11 long term continuing upgrading of operator training is really
12 not part of the issue.

13 MR. SCHROEDER: We may have been a little misleading
14 in using the term "long term" upgrading but we did that to
15 differentiate it from some of the more specific steps that have
16 already been taken.

17 COMMISSIONER HENDRIE: Short term lessons.

18 CHAIRMAN AHEARNE: But you are at least tentatively at
19 the moment aiming at a rule making. Now the expectation is two
20 years. How carefully thought out is that?

21 MR. SCHROEDER: That probably came out of the action
22 plan. Since we have not developed the detailed task plan for
23 this issue, you certainly might want to change that.

24 CHAIRMAN AHEARNE: I would have thought our rule making
25 to be completed in two years, it would be out already.

1 All right. Any other questions on that one?

2 Go ahead.

3 MR. KNEIL: The second item is Operating Procedures.
4 We feel that a number of deficiencies in the procedures, both in
5 accuracy and usability, have been identified. We would like to
6 provide a consistent format and content, improved delineation
7 of symptoms, events and plant conditions that apply to normal
8 situations.

9 My perception is that the way we review these, and this
10 would fall in that category, is that we perceive that there is a
11 significant, immediate gain that could be made in terms of
12 improving the situation in each one of these issues. Let's take
13 Operating Procedures which is different from the continued long
14 term improvement. For instance, at the moment procedures are
15 long winded written documents that are not readily referable to
16 and when you get a confusing set of readings they are hard to
17 use and there is a body of knowledge already available which
18 shows that more experienced people who have been trained with
19 simpler procedures can use them more effectively. I think that
20 there is a body of technology here that has been developed in
21 connection with the armed forces that we could probably apply
22 to nuclear plants to advantage.

23 CHAIRMAN AHEARNE: No doubt about it. You said the
24 right words. (Laughter)

25 CHAIRMAN AHEARNE: It takes a long time to get someone

1 on that side of the table to be using them.

2 MR. KNEIL: The next item is Control Room Design.

3 CHAIRMAN AHEARNE: They've even got hydrogen in here
4 for you.

5 COMMISSIONER GILINSKY: I haven't seen it.

6 COMMISSIONER HENDRIE: See if you can get cards or
7 some sort of flat places provided to the Operating Procedures.
8 Here you wander around the control, we have this monstrous
9 book down here and you are flipping and you come to some place
10 where you need both hands and you set it down on the slope and
11 the damn thing slides off on to the floor. (Laughter)

12 MR. KNEIL: It is certainly part of the problem.

13 COMMISSIONER HENDRIE: Occasionally you put your knee
14 up on it. God, there are more difficulties in Operation than
15 meet the eye.

16 MR. KNEIL: The control room design we want to reduce
17 the potential for human error by the type and manner of informa-
18 tion displayed. We think we could come up with improved design
19 requirements and standards which would achieve that.

20 COMMISSIONER GILINSKY: Could I take you back to No. 2.

21 MR. KNEIL: Sure.

22 COMMISSIONER GILINSKY: Does that include this -- is
23 this sort of a general category of generally improved procedures
24 or are you talking about specific --

25 MR. KNEIL: Well, we are talking about procedures that

1 are used in the control room for operation, the procedures that
2 would be used for maintenance procedures --

3 COMMISSIONER GILINSKY: Kind of an across the board
4 improvement?

5 MR. KNEIL: Yes, anything that is used for an operating
6 plant, right.

7 COMMISSIONER GILINSKY: Where would something like this
8 pumps on-pumps off problem fall?

9 MR. KNEIL: Well, that would be in determining what the
10 procedure is but that is not really the problem here. The
11 problem is --

12 COMMISSIONER GILINSKY: We don't really consider that
13 one unresolved.

14 COMMISSIONER HENDRIE: At the moment, that is.

15 MR. DENTON: I did ask for a summary of the status of
16 that issue. We have had several meetings with the ACRS. We have
17 met with all the vendors. A lot of people were involved and
18 agreed to modify some test programs or try to establish it.
19 My reading of the minutes of all those meetings was there is no
20 reason not to turn them off and there are reasons to turn them
21 off. So the net consensus of everybody every time that you
22 gather up a big meeting of the minds on it is that they are off.
23 Now there might still be an occasional --

24 COMMISSIONER GILINSKY: But isn't that in the nature
25 of an interim solution which in part reflects that we know

1 something about certain -- What happens if you turn them off and
2 we are not sure what happens if you follow different procedures
3 so that the instructions may be perfectly correct but there still
4 may be a better way of handling it. That is why I wonder whether
5 that really is not in some larger sense unresolved still.

6 MR. DENTON: I guess in the staff view it was not and
7 we were going to wait for more live tests and they were going to
8 try some pumps on or pumps off to see if they could improve.

9 CHAIRMAN AHEARNE: This particular one, maybe I have
10 read into it but what I was getting out of it is that the
11 assumption was that there is an underlying agreement on what
12 kinds of steps ought to be taken and then the question is how do
13 you write that in such a way that it is clear and can be used
14 easily.

15 MR. KNEIL: That is for procedures?

16 CHAIRMAN AHEARNE: Yes.

17 MR. KNEIL: Yes. That is a correct emphasis.

18 COMMISSIONER HENDRIE: There is that aspect and there
19 is also then the problem in the emergency procedures that at the
20 present time why there is an index and you turn to the index and
21 you are listed, you know, fifteen or whatever odd types of
22 emergencies and, you know, if you know exactly what your emergency
23 is why you find it in the index and turn to the proper section
24 following Procedure. On the other hand, there is not any meter
25 on the board that says this is a small loss coolant accident.

1 The needle stopped there. If you misjudge, you know, you can
2 turn to the emergency procedures and the first thing it says on
3 the page is, you make sure that you got the right emergency and
4 that is not so clear.

5 There is a way to do those things which is much more
6 difficult which is the reason it hasn't been implemented that
7 ought to be looked at and that is a symptom oriented decision
8 tree down through what you do and whether that can be made fully
9 effective or not I don't know but I suspect even if it can't go
10 all the way that one of the things the emergency procedures
11 ought to have is a preface section which helps you with the
12 symptoms in sorting out what kind of a track you may be on and
13 hence where to look further in order to get into the right
14 emergency procedure.

15 MR. KNEIL: Yes, they have already started in that area
16 and symptom oriented is one of the approaches that is being taken.

17 The fourth item is the consideration of degraded or
18 mellowed cores in safety reviews. Although the writeup here
19 doesn't highlight it, it does include the problem of hydrogen
20 control in litigation.

21 COMMISSIONER GILINSKY: It doesn't mention it as far
22 as I can see.

23 MR. KNEIL: You are correct, it doesn't hardly mention
24 it. (Laughter)

25 CHAIRMAN AHEARNE: Mention to one highlights.

1 MR. KNEIL: In defense let me say that it refers to
2 2B8 which does discuss hydrogen extensively under which the
3 hydrogen work is anticipated to be done.

4 COMMISSIONER GILINSKY: This is the action plan on the
5 degraded core.

6 CHAIRMAN AHEARNE: It relates specifically to 2B8.
7 What you are saying is if we had looked up 2B8.

8 MR. KNEIL: Yes. I apologize for not carefully --

9 MR. SCHROEDER: Quite frankly you understand why the
10 sentence preceding that was what is included and it does not
11 contain that because the sentence otherwise is lifted out of 2B8
12 which does include it.

13 COMMISSIONER HENDRIE: Probably missed a line in the
14 typewriter.

15 CHAIRMAN AHEARNE: Given that previous sentence, when
16 you have the statement "the criteria for locating highly radio-
17 active systems" -- these are what kinds of systems? What kinds
18 of systems are you talking about?

19 MR. KNEIL: I would think it was something like rad
20 waste or rad waste storage or things like that.

21 MR. SCHROEDER: Decayed heat systems. I think that is
22 the thrust of it, the systems that may become highly radioactive.

23 MR. KNEIL: Right. During an accident, right.

24 COMMISSIONER HENDRIE: Located in the sense of position.

25 MR. KNEIL: Position so that you can operate them

1 without --

2 COMMISSIONER HENDRIE: Shieldable or what have you.

3 MR. KNEIL: Right.

4 COMMISSIONER HENDRIE: Not in the sense of flame.

5 CHAIRMAN AHEARNE: All right. That is what I was --

6 COMMISSIONER GILINSKY: Actually the first four are
7 all -- well, maybe some of the others, too -- are all great,
8 broad categories. They seem rather broader categories than the
9 kinds on the list of the past.

10 MR. KNEIL: They are broad categories. We certainly
11 want to write them with specific tasks with specific end points
12 as Harold Denton has pointed out. We have had some trouble with
13 the broader category USIs but I think what we need to do is write
14 a task action plan that contemplates, you know, a specific work
15 and recognizing that it is always a subject of continued interest.

16 CHAIRMAN AHEARNE: In this particular case I guess you
17 would end up then with a number of sub issues involved in it with
18 specific --

19 MR. KNEIL: Yes. This area is a wide open area because
20 we don't at the moment have any kind of criteria for handling
21 degraded cores. They are design criteria essentially all related
22 to avoiding that situation. We haven't extensively addressed or
23 even -- we don't address in the standard review plan or the
24 regulatory regulations the really any kind of significant number
25 of criteria that would relate to how do you operate with degraded

1 cores.

2 COMMISSIONER GILINSKY: Well, if you took a specific
3 look at hydrogen control across the board and reported to us on
4 it --

5 MR. KNEIL: Yes, that was part of 2B7 in the papers
6 to the Commission. Yes, but now we continue that work to see,
7 you know, to continue to see what methods of hydrogen control
8 are minimizing the problem or handling the problem could be
9 worked out. That would be part of this.

10 MR. SCHROEDER: I think precisely because this is a
11 rather broad area with a lot of closely interacting topics in it
12 it seems to me there is an advantage in this case of making it
13 in the USI and having task managers, well laid out integrated
14 plans for the whole activity.

15 CHAIRMAN AHEARNE: How would you under that test manager
16 approach, how do you bring in research?

17 MR. DENTON: I think four of our task managers now are
18 in research actually. We don't work for research on some of the
19 existing plants but the plan for each one has listed what NRR
20 does, Standards does, Research does and so forth.

21 CHAIRMAN AHEARNE: Yes. I am really focusing specifi-
22 cally on this one because a number of these items involve efforts
23 that in some way Research has after it is already under way.

24 MR. DENTON: Yes, many of them. Many of them.

25 CHAIRMAN AHEARNE: Now would you or have you been --

1 have been or plan on then pulling that together in this overall
2 task effort?

3 MR. DENTON: We will try to reflect the entire Agency's

4 CHAIRMAN AHEARNE: And it would be a task manager NRR?

5 MR. SCHROEDER: We have that situation on some research
6 efforts.

7 CHAIRMAN AHEARNE: I understand.

8 MR. DENTON: We don't really direct what the other
9 offices do per se but we make sure that the integrated plan is
10 really integrated and we report on the progress of all of them.
11 It gives a focus, too, within NRR for the other offices to come
12 in and coordinate.

13 CHAIRMAN AHEARNE: Does Carl Michaelson get involved
14 in the choosing of these issues?

15 MR. DENTON: I don't think he has gotten involved in
16 this particular one because of the time pressures but he could
17 have.

18 MR. GEORGE: A couple of the specific issues that were
19 considered did come from Michaelson. A couple of his recommenda-
20 tions became candidate issues.

21 MR. AHEARNE: But that is because of letters that he
22 wrote as opposed to --

23 MR. GEORGE: That is correct, but he did not participate
24 in the evaluation.

25 MR. AHEARNE: Okay.

1 COMMISSIONER GILINSKY: I would think in the future
2 when we want to involve him --

3 CHAIRMAN AHEARNE: Possibly we could still involve him
4 here. It is possible to ask his comments on it.

5 COMMISSIONER GILINSKY: It might be useful.

6 CHAIRMAN AHEARNE: All right.

7 MR. KNEIL: The fifth issue we have is shut down decay
8 heat removal requirements and this is essentially a proposal to
9 study alternatives to heat removal via the steam generators and
10 PWRs. We would expect to study the desirability and possibility
11 of design requirements for alternative decayed removal which would
12 not involve the steam generators.

13 The last proposed USI is seismic qualification of
14 equipment in operating plants. The design criterion methods of
15 qualification for mechanical and electrical equipment have changed
16 significantly during the period of the last ten or so years
17 during which most plants have been licensed. The margins of
18 safety in existing equipment may vary significantly and the
19 purpose of this task is to reassess to assure a safe shutdown in
20 case of a seismic event is a reality. The objective would be to
21 establish an explicit set of guidelines.

22 CHAIRMAN AHEARNE: Now when I read it I was a little
23 puzzled on whether it was appropriate to call it an unresolved
24 safety issue now or whether it would not be more appropriate
25 after the guidelines were developed and then a comparison made

1 against the guidelines.

2 MR. GRIMES: The intent that we had envisioned from the
3 review group side was that what the generic issue would be to come
4 up with guidelines that someone could apply to make a determination
5 on whether or not there was action required on any operating plant.
6 Once the guidelines are developed there would be implementation
7 like any other generic program that develops a set of rules that
8 someone can sit down and apply to any specific plan.

9 CHAIRMAN AHEARNE: I appreciate that. Thank you. It was
10 just a little less clear to me. Since the action is the develop-
11 ment of the guidelines --

12 COMMISSIONER HENDRIE: Would you say again what the
13 guidelines are?

14 MR. GRIMES: Let me try and say it differently.

15 COMMISSIONER HENDRIE: Cunning tactic.

16 MR. GRIMES: It usually works.

17 The intent of the unresolved safety issue in this area
18 would be to develop a set of guidelines that an individual could
19 go back and make a judgment on which pieces of equipment in the
20 plant need to be requalified and which are good enough. It is
21 a means of making the concerns in this area more easily workable
22 so the objective of the program would be to develop some kind of
23 tool to make first a judgment which are acceptable and which
24 aren't so that those that aren't can be fixed.

25 CHAIRMAN AHEARNE: How would you respond to that,

1 Harold, as far as the staff, if you were challenged that well in
2 the absence of those guidelines you don't know what to do?

3 MR. DENTON: We assembled a team of experts mainly
4 consultants and visit plants starting with the SEP program of
5 the best engineers and designers around and it is a big effort
6 in each plant and it is for the ad hoc determination based on
7 looking at the equipment, looking at the records, what was tested,
8 how it is mounted and fabricated and so you are getting expert
9 judgment that it is hard though for me to turn over to a branch
10 of GS-12 to make that same determination. So in the absence of
11 it I would have to continue to rely on a small group of knowledge-
12 able people.

13 CHAIRMAN AHEARNE: All right.

14 COMMISSIONER HENDRIE: I can hardly wait to see this
15 branch of 12s. Congratulations on the grade reduction.

16 (Laughter)

17 CHAIRMAN AHEARNE: Well, see, he said he couldn't do
18 that.

19 COMMISSIONER HENDRIE: He needs the guidelines first.

20 MR. KNEIL: Could I have the next slide, please.

21 These seven issues are issues that we didn't decide
22 that they were USIs and we didn't decide that they weren't and
23 we need to do further study on them. We expect to do this study
24 in the next few months and incorporate our verdict on these as a
25 part of the NRC Annual Report for 1979. I mean, well, it will be

1 the report for -- I am sorry, 1980. I beg your pardon.

2 MR. DENTON: These sound more typical.

3 COMMISSIONER GILINSKY: These sound like unresolved
4 issues. (Laughter)

5 MR. DENTON: They deal in the mechanical area.

6 COMMISSIONER HENDRIE: We have a quick way to fix it;
7 we reverse the lists.

8 MR. DENTON: I think the list does reflect somewhat
9 our efforts.

10 CHAIRMAN AHEARNE: You just have the two slides out of
11 order, that's all. (Laughter)

12 MR. DENTON: I am trying to overcome our inclination
13 toward hardware, I think.

14 COMMISSIONER GILINSKY: Let me ask you about another
15 broad issue, one of the criticisms that came in of our experience
16 with this job. Our experience was that we drew the line too
17 sharply between the safety related and non-safety related and
18 it turned out things that we felt were not safety related turned
19 out to be importantly safety related.

20 MR. DENTON: Yes.

21 COMMISSIONER GILINSKY: Where is that line getting
22 redrawn? Is there any effort focused on that specific question?

23 MR. DENTON: That was certainly counted as an action
24 plan item.

25 COMMISSIONER GILINSKY: It actually shows up in

1 probably a few different candidate issues that were considered.
2 One of the ones that was discussed in this Enclosure 4 is a
3 classification of electrical equipment, expanding the list of
4 what would be classified as Class I(e) electrical equipment.
5 That is a separate issue where there is some work ongoing,
6 changes to standards being considered. That one specifically
7 we ruled out because some of the components that they are
8 narrowing down on are ones that will provide some improvement
9 but in the judgment of people that looked at it it didn't look
10 like it would be a large reduction in risk for what they are
11 considering on that reclassification of electrical.

12 Another area where it is picked up is an issue in the
13 action plan that is identified as expanding the Q/A list and
14 that one is a rather broad concern and I think that the intent
15 in the action plan was to wait until the results if IREP are in
16 and after we get those results then we can identify which of these
17 non-safety related components may be falling in important event
18 sequences or significant contributors to risk and then maybe at
19 that time we can identify that as an unresolved safety issue,
20 maybe upgrading reliability of certain non-safety related systems
21 but it seems to be one that relates more to that ongoing program
22 of IREP that we really won't have a good handle on what of that
23 is important for another couple years.

24 Now there are probably a few other minor issues that
25 relate to this non-safety related but I think those are the two

1 main ones.

2 CHAIRMAN AHEARN: It sounds to me like it is a pretty
3 important issue.

4 MR. SCHROEDER: It might be worth stressing the point
5 that the fact that an issue does not make the definition of
6 unresolved safety issue does not mean that there will necessarily
7 be no work going on. As a matter of fact, one of the tasks of
8 the sister branch in our division, the Safety Program Evaluation
9 Branch, is to review the longer list of generic issues we have
10 before us to work on and establish a better system of prioritization
11 of those issues to work with other divisions.

12 CHAIRMAN GILINSKY: After the accident we heard a great
13 deal of how it is important to look at a secondary site and the
14 control systems and so on and that we are going to have to expand
15 the scope of our review. I mean where is that getting decided?
16 Where is that getting done?

17 MR. DENTON: The action plan does have dates and
18 commitments and you can begin to see it creeping in in various
19 places but it does not have a single focus and that is what an
20 undeveloped safety issue would do if it were to be identified.
21 Individual people's perception like sampling of primary coolant
22 systems and those auxiliary building filters, for example, are
23 areas where the review branch now works much harder because they
24 see a connection accidents and --

25 COMMISSIONER GILINSKY: But somewhere you have got to

1 decide whether the reviews as they were conducted before were
2 okay or whether they want to run reviews differently, want to
3 expand the scope of reviews and so on. Now in the sense that is
4 getting done in a lot of different ways simply because in each
5 of these little categories people are doing more of but it would
6 seem important to me to have the kind of top down look at all of
7 this and try to shape the review process in the way that in the
8 direction that you think it ought to go.

9 MR. DENTON: I guess what I see happening is more of
10 the rothogonal approach that we are still using, the existing
11 standard review plans supplemented by the Commission's approval
12 of the action plan items and ultimately I hope to redo the
13 standard review plans to pick up these additional requirements
14 routinely so that all the items in the action plan that are now
15 in redirect each branch so that we start off on a new foot and
16 that is one of the charters that you envision in safety
17 technology, rewrite the standard review plans for each branch.

18 COMMISSIONER HENDRIE: Vic, I think the way over the
19 long pull the only really reational way to pick up that point
20 about what is safety related and what isn't is through the IREP
21 type of examination; that is, the risk assessment sort of
22 examination because while the industry needs certain categories
23 of equipment that are designated Class 1-E or seismic Category 1
24 or quality grade so and so, in order to be able to purchase them
25 to monitor the appropriate industrial standards and so on, in

1 the broader sense and closer home to real safety components don't
2 really fall into nice, clean -- a black bin that is safety
3 related and a white bin that is not safety related. That is a
4 given component or subsystem may be able to contribute in
5 certain ways both for and against safety in certain accident
6 sequences and in certain sequences it will be important and in
7 others it won't be important at all.

8 And so what do you do about that? Well, a methodology
9 which allows you to take account of that variable importance in
10 various sequences and also provide you a methodology for sort of
11 a crude summing across all of the dominant sequences is the risk
12 assessment technique. I think the process of using that to look
13 at plants and then to go back into plant design and operating
14 measures to try to knock down the likelihood of what appear to
15 be dominant risk sequences of what we call the out myers in
16 particular that seem to be especially prominent above the sort
17 of general level of risk -- that is the way in which you get to
18 the proper level of review on components which are partly safety,
19 partly non-safety and so on and deal with the safety problem.
20 But just trying to categorize everything as safety related,
21 non-safety related, yes, you have to do that because you either
22 buy a component to Class E-1, Class E-1 electrical standards if
23 it is electrical, or you don't and you have to decide one way or
24 the other, but in terms of the real safety why --

25 COMMISSIONER GILINSKY: I thought one of the lessons

1 we learned was in fact that there were shades of gray.

2 COMMISSIONER HENDRIE: Just so. Just so.

3 COMMISSIONER GILINSKY: Then we didn't have a black and
4 white system.

5 COMMISSIONER HENDRIE: We did have a black and white
6 system.

7 COMMISSIONER GILINSKY: When I said expand the notion
8 of safety related I didn't mean simply using a cookie cutter.

9 COMMISSIONER HENDRIE: To move the boundary over.

10 I think Carl is right.

11 MR. DENTON: One of the near term OL requirements, for
12 example, all the operators now have training in what systems are
13 available to use in the event of degraded core condition and we
14 make sure they are trained using, for example, non-safety related
15 equipment. So we have moved into that area but the way we have
16 really moved is through the requirements that the Commission
17 adopted.

18 COMMISSIONER GILINSKY: You know, if it is the IREP
19 program that leads to this result, that is fine. But it still
20 seems to me an important unresolved area, an unresolved safety
21 area. I would not think that you would want this thing to simply
22 grow up organically in the way the requirements developed over
23 the past so many years and without any control or some central
24 point.

25 MR. DENTON: That could be made a candidate and that is

1 what would be focused as we talked about with the very first one.
2 It is a difused broad area that has a lot of elements.

3 CHAIRMAN AHEARNE: It certainly has the breadth. In
4 some ways it approximates the mission of the Agency so that is a
5 little excessive.

6 COMMISSIONER GILINSKY: Well, except you are talking
7 about specific design reviews. You are not talking about all the
8 other activity.

9 What is it that ought to get reviewed and to what
10 degree? Presumably there will be instead of two categories there
11 will be one category.

12 MR. KNEIL: It is in the action plan now, it is Item
13 I (f)(i) in the action plan, expanded Q/A list. So there is
14 some focus on it as part of the action plan.

15 COMMISSIONER GILINSKY: I think it is important.

16 *Commissioner*
~~CHAIRMAN~~ HENDRIE: Well, I think it is an important item
17 but it has a certain awkwardness about it as a so-called unresolved
18 safety issue, not that some of the others don't have similar
19 elements of awkwardness.

20 COMMISSIONER GILINSKY: Harold, could you give me a very
21 rough estimate of the difference in what your estimate would be
22 of Agency resources putting these candidates on? I well recognize
23 the advantages of management's intentions, I am strong supporter.
24 So I can certainly agree that by putting a set on the list and
25 getting management attention you can have much higher confidence

1 that the work is coordinated and gets done. As far as the impact
2 on the Agency resources --

3 MR. DENTON: I think the impact is a minimum is probably
4 a task manager per project. One additional person for the
5 duration of that project and then I assume that he has an impact
6 on the thoroughness of the study that would not possibly be there
7 in tying up all the inner division-inner office wants. Maybe
8 another man-year of effort just as a rough guide because we do
9 tend to spend more time on them. There must be at least two man
10 years per issue per year over and above what the issue would get
11 if it were just assigned to the branch that is actually doing
12 the work.

13 MR. SCHROEDER: On the other hand, in some of these I
14 think there is a degraded core in particular. It seems to me if
15 you don't designate it as a USI there is still going to be a need
16 in my view as an NRR to have one or two people spend the bulk of
17 their time coordinating with an extensive effort so that we are
18 all moving in the same direction and on a reasonably integrated
19 time schedule.

20 CHAIRMAN AHEARNE: I guess to some extent, I think this
21 is really a mechanism by which only not only Harold and for NRR
22 but the Agency says, yeah, these are the clusters of very
23 important issues. Now given that kind of perspective I guess for
24 myself I have got to at least think a little more about the ones
25 that you have recommended and the ones that you have not

1 recommended to see whether or not there are some modifications
2 that I would like made, and I think I would like to pick up on
3 Gilinsky's suggestion that we will ask Michaelson for his
4 comments because it is the Agency in one way or another saying
5 that these are the clusters.

6 COMMISSIONER HENDRIE: You know, if we want to have a
7 list of items, you know, the directors select lists of technical
8 safety issues which have high priority and the directors atten-
9 tion could -- let's create such a list.

10 CHAIRMAN AHEARNE: We have.

11 COMMISSIONER HENDRIE: But let us not use unresolved
12 safety issues as that is let's not designate as USIs items for
13 which we want that attention and which are otherwise not clear
14 and proper unresolved safety issues. You know, I think the USI
15 category is a proposition that we ought to try to come to a zero
16 list on promptly.

17 CHAIRMAN AHEARNE: I don't think all of that would be
18 zero, Joe.

19 COMMISSIONER HENDRIE: Well, it is not in a --

20 CHAIRMAN AHEARNE: You need a flow through.

21 COMMISSIONER HENDRIE: It is not an appropriate --
22 That very well may be the case. That may very well be the case.
23 But to maintain it and to populate it as with items for which
24 our primary aim is to have an increased attention to the item,
25 to assign a task manager and so on, for God's sakes you can do

1 that and simply call them Denton's items or something like that.
2 Unresolved safety issues has gotten this statutorily recognized
3 proposition put to it. You know, things which are not really
4 unresolved safety issues in that sense, in the full sense in which
5 we have used it in the past ought to be on the list. There ought
6 to be another list for which you do the same sort of management
7 thingsbut --

8 CHAIRMAN AHEARNE: Well, I think for better or worse,
9 Joe, that that is what this whole subject is really accomplishing.

10 COMMISSIONER HENDRIE: And if it is going to be the area
11 where we end up focusing valuable men's attention it ought to be
12 those things that we think are the most important things.

13 COMMISSIONER GILINSKY: These are undertones of the
14 issues, the others are issues requiring full study. (Laughter)

15 CHAIRMAN AHEARNE: Amen.

16 COMMISSIONER GILINSKY: Following up 2B action plan, I
17 am trying to find the analysis control and I see 2B7 which is an
18 analysis of hydrogen control. Three I understand is not a
19 generic issue.

20 MR. GRIMES: If I may, I have a similar interest in
21 hydrogen control. It was designated 3 because that particular
22 part of the task action plan refers to inserting, Vermont
23 Yankee and Hatch II. Those are two specific plans. The overall
24 question of an earning has gone into a state of limbo because
25 shortly before Three Mile Island the staff made a determination

1 that we could develop combustible gas control design features
2 that would permit BWR plants to operate de-inerted and we started
3 implementing that --

4 CHAIRMAN AHEARNE: BWR?

5 MR. GRIMES: BWR. That was the new Rule 50.44 which if
6 implemented would have allowed all of the operating boiling water
7 reactors to be inert. And then right after we issued that along
8 comes the Three Mile Island and it says maybe you ought to design
9 combustible gas control systems for a degraded core condition.

10 The intent of the unresolved safety issue aspect of
11 degraded cores is first we have got to make a technical decision
12 on the extent to which we are going to design all nuclear power
13 plants to degraded cores for the interim lessons learned has
14 taken the position that we inert Hatch II and Vermont Yankee.
15 So in fact we have screened it out on two bases. One is that it
16 only applies to two plants and the other is that there is a
17 position, there is a technical resolution. Inert the plants
18 until you make a decision and to what extent you are going to
19 design for a degraded core condition.

20 CHAIRMAN AHEARNE: What about the ice condenser plants?

21 MR. GRIMES: The ice condenser plants as reflected in
22 the Commission paper combustible gas control, it is not as clearly
23 understandable what benefits you might gain by inerting and it is
24 quite clear that there are a number of disadvantages to inerting
25 the ice condenser, they are slightly different.

1 COMMISSIONER GILINSKY: Well, wait a minute. You are
2 focusing this thing narrowly on inerting.

3 MR. GRIMES: Well, I am focusing on it narrowly from
4 the standpoint of your interest is in hydrogen control and what
5 I have said is that for hydrogen control there is a staff
6 position right now that suggests inert the boiling water
7 reactors, don't inert the ice condensers yet, look at some other
8 things you might be able to do or --

9 COMMISSIONER GILINSKY: Or MARK III.

10 MR. GRIMES: Yes, like that system that used them.

11 MR. DENTON: Of course the issue of the ice condensers
12 has been overtaken by advancement of Sequoia and that will be the
13 place where we resolve that issue for ice condensers.

14 COMMISSIONER GILINSKY: Well, I guess I regard it as
15 an unresolved issue. I mean it may get resolved and hopefully
16 will be resolved, you know, and we will find some happy resolution
17 of the thing.

18 MR. DENTON: Let's just assume we inert ice condensers.
19 I don't think that is going to be the case but if we did then it
20 wouldn't be an unresolved safety issue because there would be no
21 point in trying to further reduce the risk if we had a solution
22 that mooted the question. But it seems so early with ^{Sequoia}~~Sequoia~~
23 moving through it seems like it may get a resolution that should
24 not go on here. If we fail to resolve it, then it might become
25 an unresolved safety issue.

1 COMMISSIONER HENDRIE: Well, I thought hydrogen was a
2 part of the degraded core project.

3 MR. DENTON: It is.

4 COMMISSIONER HENDIRE: So it is on the list.

5 COMMISSIONER GILINSKY: It is on the list.

6 COMMISSIONER HENDRIE: No, no. It is on the list but
7 what I seem to be hearing is it was on the list in a very narrow
8 sense.

9 CHAIRMAN AHEARNE: I guess what we really have to have
10 is something you have to get and come back and explain to us,
11 how hydrogen would be incorporated and all that.

12 MR. DENTON: Well, hydrogen is part of the rule making
13 which we said that big dry containments didn't have to do
14 anything today until after the rule making and we proved ice
15 condensers into that same category but we put in the other
16 category --

17 CHAIRMAN AHEARNE: You are saying it is under 2B8.

18 MR. DENTON: 2B8, yes, which was new Commission
19 criteria for all plans for hydrogen control. Now we parced out
20 ice condensers and we are going to face that issue I hope soon.

21 COMMISSIONER GILINSKY: But it is not clear that the
22 solution -- I said we would have to have a happy solution for
23 *Sequoyah*
~~Sequoyah~~. It is not clear that that is going to be a satisfactory
24 solution for the long run and for all plants and so on. I think
25 we are very much in the position of hoping that there is an

1 interim solution.

2 MR. DENTON: I guess if it doesn't we would put it on
3 the list. I just personally don't have the apprehension about
4 the issue disappearing. I am hopeful that in ~~Sequoia~~ ^{Saprophyte} we can
5 come to some resolution. If not, maybe there is an interim
6 step and it would become a long term issue.

7 MR. MINNERS: I just wanted to say I think it is just
8 a matter of the action plan that was divided up. The intent was
9 for the 2B8 to consider all issues, including hydrogen control,
10 in the long term and get a good solution to the whole ball of
11 wax. 2B7 was put in as an administrative thing which we said
12 that the Agency should decide what it wants to do about hydrogen
13 control before it resumes licensing and that was the purpose of
14 the papers, that you have ice condensers, that you would have
15 BWRs in this decision. This interim decision should be made
16 before you continue licensing.

17 COMMISSIONER GILINSKY: Thank you.

18 MR. KNEIL: The hydrogen certainly is discussed in the
19 text that goes along with 2B8 in the action plan. It talks about
20 a hydrogen control system for plants and in the long term rule
21 making. It again discusses hydrogen control measures to deal
22 with accident control conditions involving large amounts of
23 hydrogen generation, ice condensers, BLURs, subatmospheric and
24 dry containment structures. So I think this is the right place
25 for it. You want to consider the hydrogen question and the

1 degraded core question together because certainly the hydrogen
2 follows from the degraded core and it is not just a question of
3 it is a Zircaloy reaction, it is a question of, you know,
4 melt reactions with concrete and things like that. So it is
5 certainly an integral part of considering the degraded core I
6 think.

7 CHAIRMAN AHEARNE: What interactions have you had with
8 the ACRS on this list? You mentioned in your paper that they had
9 been briefed on it but they had not had the opportunity to provide
10 advice.

11 MR. KNEIL: That is correct. They have been briefed on
12 the method we proposed to select, the chart you saw and the
13 methods and we briefed them on that but they have not had an
14 opportunity to comment on the issues that we proposed.

15 MR. SCHROEDER: We did stress to the committee when we
16 described the process and made them aware that there just wasn't
17 time with the schedule we had to have subcommittee meetings or
18 full committee meetings on this list. We did make a point to
19 them that in preparing the Annual Report we will be going back
20 over a large number of issues screening them for that and we do
21 plan to areas in a more active way.

22 CHAIRMAN AHEARNE: Vic, any more questions?

23 COMMISSIONER GILINSKY: No.

24 CHAIRMAN AHEARNE: Joe.

25 COMMISSIONER HENDRIE: I think we ought to talk for a

1 minute, John, about schedule just to be clear and for the staff
2 to be clear how we see this schedule. On the one hand we could
3 say, well, we are going to meet the committee schedule with the
4 Congress and send down a report which will pretty well have to
5 be these six items and with appropriate words that say this is
6 a -- I don't know. Preliminary is not the right word but this
7 is a special report which you had asked for that we are making
8 in response to your request. Ongoing analysis and studies here
9 at the Commission indicate that a review of these items will be
10 appropriate for the next regular issue of the Annual Report with
11 the unresolved safety issues section in it. That is, to make the
12 report, put the six in but attach to it a suitable caveat that we
13 aren't quite through chewing on these things, that they might see
14 some adjustment in them when the regular 1980 report came out.

15 We could just agree now to let it go on that basis.

16 The other thing to do would be to take a little more
17 time and give the ACRS a chance to munch a little on it. You
18 wanted to ask Michaelson what his comments were. Vic wants to
19 think some more about how one might phrase a safety related
20 versus non-safety related issue in which case why we go beyond
21 the nominal schedule and that is fine, too, but if we are going to
22 do that I think we ought to simply recognize it and then we can
23 get off a letter -- you can get off a letter saying we will be a
24 little late and then people needn't, you know, stand around and
25 hold their breath for the thing.

1 CHAIRMAN AHEARNE: Those are the options.

2 COMMISSIONER HENDRIE: Yes. I must say I don't have
3 strong preferences. I would be glad to go either way.

4 CHAIRMAN AHEARNE: I would suspect that you actually
5 -- the third option, that is, I think that we could not be very
6 late. I am sure we could get Carl Michaelson's comments. I
7 wouldn't imagine the thing to construct the option would take
8 that much longer.

9 COMMISSIONER HENDRIE: By the time you think about it
10 and talk to some people, cycle a draft out to Frank and Carl --

11 CHAIRMAN AHEARNE: The point I want to make is that I
12 think all of the things by August, to get the ACRS would take
13 -- I don't think we can get their comments until September.

14 COMMISSIONER HENDRIE: I think that's right.

15 CHAIRMAN AHEARNE: That is significant.

16 COMMISSIONER HENDRIE: I am not all that confident
17 about a shorter schedule if you don't get the ACRS comments
18 because we are just now about to embark on budget review which
19 is going to lock the Commission's attention. We won't, you know,
20 only really overriding professional testimony and that kind of
21 thing could be added to the budget review schedule and immediately
22 after the budget review why I know people have got some time
23 marked out so I think we are looking at Labor --

24 CHAIRMAN AHEARNE: You say either way.

25 COMMISSIONER HENDRIE: Yes. Either way is fine with

1 me but I think we are looking at Labor Day.

2 CHAIRMAN AHEARNE: Do either of you have a comment,
3 gentlemen?

4 COMMISSIONER BRADFORD: I am inclined to agree with
5 both the proposition that we ought to get Carl's comments and
6 ACRS views and my own inclination is to clarify the involvement
7 of hydrogen control as long as it indeed already there and also
8 to try and pick up the expanded Q/A list and the classification
9 of instrument control and electrical equipment at least on the
10 list of issues for further study which I gather is the essence
11 of Vic's proposition. I came back in more or less the middle of
12 it so I may have misstated it. So I would be all for you sending
13 a letter saying we needed a few more weeks.

14 CHAIRMAN AHEARNE: Now I was not quite clear. Peter,
15 there are two lists here. There is one list on the further
16 study item and there is another list on unresolved safety issues.
17 On which set were you requesting --

18 COMMISSIONER BRADFORD: Well, at least further study
19 on. That is more or less the proposition that is being advanced
20 for those two items anyway; that is, they will be studied further
21 and at the end of that time we will tell you if there is some part
22 of them that belongs on the generic issue list. For some reason
23 though they fall short of the kind of further study that gets
24 them on the list for further study and I am not sure I have
25 fully grasped the distinction. I would propose to say that they

1 are on the list for further study.

2 COMMISSIONER GILINSKY: Well, I want to think about it
3 a little more but I brought it up. I meant to put it on the --

4 CHAIRMAN AHEARNE: That is what I thought.

5 COMMISSIONER GILINSKY: One list or another.

6 COMMISSIONER HENDRIE: Before or after we change the
7 titles.

8 CHAIRMAN AHEARNE: Gentlemen, how much of a glitch does
9 it put in your planning if we hold for several weeks?

10 MR. DENTON: I don't think it affects us provided you
11 recognize our need for the delay in an eventual turning out
12 product.

13 CHAIRMAN AHEARNE: Yes.

14 MR. DENTON: Eventually Frank is going to have to start
15 in September producing next year's Annual Report.

16 CHAIRMAN AHEARNE: I was going to say if we slip very
17 far, why it will impact on the --

18 MR. DENTON: The last time we went through this we made
19 some changes in modifications in response to the Commission's
20 values on these and I think it is appropriate so I would be happy
21 to have just a little --

22 CHAIRMAN AHEARNE: What I will propose to do then is to
23 -- I will ask Michaelson, I will ask congressional to draft up a
24 letter to the Congress telling them that we will probably be late.
25 I will ask my colleagues to, if they can -- let's see. Today is

1 Thursday. By next Wednesday if you have some suggestions on
2 things that you would like added to the list, either of the two
3 lists, to generate to the staff. Is that satisfactory?

4 COMMISSIONER GILINSKY: Sure.

5 CHAIRMAN AHEARNE: All right. Thank you.

6 It is really a good, thorough development and as Harold
7 points out, the last time we also modified so I think we feel an
8 obligation to try to do that kind of a review.

9 Very good.

10 (Whereupon, at 11:42 a.m., the meeting adjourned.)

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NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

in the matter of: A PUBLIC MEETING - SAFETY ISSUES

Date of Proceeding: July 17, 1980

Docket Number: _____

Place of Proceeding: Washington, D. C.

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

Annabelle Short

Official Reporter (Typed)

Annabelle Short

Official Reporter (Signature)

SAFETY TECHNOLOGY
 COMPLETED GENERIC TASKS ASSOCIATED
 WITH THE RESOLUTION OF UNRESOLVED SAFETY ISSUES

<u>TASK NO.</u>	<u>DESCRIPTION</u>	<u>FINAL STAFF REPORT WITH TECHNICAL RESOLUTION</u>	<u>IMPLEMENTATION TO PLANTS</u>
A-6	Mark I Containment, Short-Term Program	NUREG-0408 DECEMBER 1977	Completed
A-26	Reactor Vessel Pressure Transient	NUREG-0224 SEPTEMBER 1978	Completed
A-31	Residual Heat Removal	REG. GUIDE 1.139 MAY 1978	Completed

jm
7/17/80

SAFETY TECHNOLOGY
 GENERIC TASKS ASSOCIATED WITH UNRESOLVED SAFETY ISSUES
 THAT ARE NEAR COMPLETION

<u>TASK NO.</u>	<u>DESCRIPTION</u>	<u>STAFF REPORT WITH TECHNICAL RESOLUTION ISSUED "FOR COMMENT"</u>	<u>FINAL STAFF REPORT WITH TECHNICAL RESOLUTION</u>
A-2	Asymmetric Blowdown Loads on Primary Coolant System	--	July 1980
A-7	Mark I Containment, Long-Term Program	--	August 1980
A-9	ATWS	NUREG-0460, Vol. 4, March 1980	January 1981
A-10	BWR Nozzle Cracking	NUREG-0619, April '80	February 1981
A-12	Steam Generator & Reactor Coolant Pump Supports	NUREG-0577, Nov. '79	May 1981
A-24	Qualification of Class 1E Safety- Related Equipment	NUREG-0588, Jan. '80	August 1980

(1) ATWS Rule Issued

SAFETY TECHNOLOGY PAGE 2 of 2
GENERIC TASKS ASSOCIATED WITH UNRESOLVED SAFETY ISSUES
THAT ARE NEAR COMPLETION

<u>TASK NO.</u>	<u>DESCRIPTION</u>	<u>STAFF REPORT WITH TECHNICAL RESOLUTION ISSUED "FOR COMMENT"</u>	<u>FINAL STAFF REPORT WITH TECHNICAL RESOLUTION</u>
A-36	Control of Heavy Loads Near Spent Fuel	--	August 1980
A-42	Pipe Cracks in BWR's	NUREG-0313, OCT. '79	July 1980

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