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NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

DKT/CASE NO. 50-142-OL

TITLE THE REGENTS OF THE UNIVERSITY OF CALIFORNIA (UCLA Research Reactor)

PLACE Los Angeles, California

DATE February 23, 1983

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1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

3 ATOMIC SAFETY AND LICENSING BOARD

4 - - - - - - - - - - - - - - - -X

5 In the Matter of: :

6 THE REGENTS OF THE : Docket No. 50-142-OL
UNIVERSITY OF CALIFORNIA :
7 (UCLA Research Reactor) :

8 - - - - - - - - - - - - - - - -X

9 Wednesday, February 23, 1983
Customs Courtroom, Eighth Floor
10 The Federal Building
300 North Los Angeles Street
11 Los Angeles, California

12 Prehearing conference in the above-entitled matter

13 convened, pursuant to notice, at 9:40 a.m.

14 BEFORE:

15 JOHN H. FRYE, III, Chairman
Atomic Safety and Licensing Board

16 DR. OSCAR H. PARIS, Member

17 DR. EMMETH A. LUEBKE, Member

18 APPEARANCES:

19 On behalf of the Applicant:

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1 APPEARANCES (Continued):

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On behalf of the Intervenor:
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7 Nuclear Law Center
SHELDON PLOTKIN
8 DANIEL HIRSCH
Committee to Bridge the Gap
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10 San Francisco, California 94123

11 On behalf of the Regulatory Staff:

12 COLLEEN P. WOODHEAD, Esq.
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1 I N D E X

2 WITNESSES: DIRECT CROSS

3 (None)

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8 EXHIBITS IDENTIFIED IN EVIDENCE

9 (None)

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1 P R O C E E D I N G S

2 9:40 a.m.

3 JUDGE FRYE: On the record. Good morning. We could
4 come to order, please.

5 This is a prehearing conference on the application
6 of the Regents of the University of California for renewal
7 of their operating license for the UCLA Argonaut University
8 Training Reactor which is located here in Los Angeles.

9 Sitting with me today are Dr. Oscar Paris, who is
10 an environmental scientist and a full-time member of the
11 Atomic Safety and Licensing Board, seated on my right. On
12 my left is Dr. Emmeth Luebke, who is a physicist and also a
13 full-time member of the Atomic Safety and Licensing Board Panel.

14 I am John H. Frye, and I am also a full-time member
15 of the Atomic Safety and Licensing Board Panel. I chair the
16 Board for this hearing.

17 Before we commence the prehearing conference, I think
18 it would be helpful to have a brief outline of how we got to
19 the point that we now find ourselves. And that point at which
20 that history should start is probably where the filing of
21 motions for summary disposition of all the admitted contentions,
22 with two exceptions, by UCLA and the NRC staff. Those motions
23 were filed on September 1st of last year. On September 7,
24 the Committee to Bridge the Gap, the Intervenor in this pro-
25 ceeding moved for summary disposition of Contention 13 and

1 Contention 17. Subsequently the Committee to Bridge the Gap
2 moved to summarily dismiss staff and UCLA's September 1
3 motions for summary disposition on the grounds that they
4 were filed for purposes of delay.
5 After receiving the responses from the other parties
6 to that motion, we denied the motion on October 22 of last
7 year. That instituted a bifurcated procedure for responses
8 to the staff and UCLA motions for summary disposition, with
9 the thought that that might expedite proceedings and lead us
10 to a resolution of the issues in this case more quickly than
11 otherwise would be the case.
12 The first step of that bifurcated procedure required
13 the movements to furnish citations to authority for statements
14 of facts which they maintained were not subject to dispute.
15 The movements did so. Opponents of the motions were then re-
16 quired to address each of the facts which the movements claimed
17 not to be in dispute, and indicate whether they agreed that
18 the fact was not in dispute, or if they disagreed. If they
19 disagreed they were then to file citations to authority which
20 indicated that a dispute existed. Both the Committee to Bridge
21 the Gap and UCLA sought reconsideration of these procedures.
22 On November 8 we held a telephone conference call
23 to consider those motions and to hear the views of the parties.
24 We agreed in that conference call that we would follow the
25 first step of the procedure and that we would take up matters

1 regarding admissibility of evidence and other matters at the
2 second step which would address the legal consequences of the
3 facts found not to be in dispute.
4 We have completed the first step of the procedure.
5 And on January 28, after receiving the responses from the
6 Committee to Bridge to Gap, and staff, and UCLA, as well as
7 Santa Monica, we issued a memorandum and order in which we
8 indicated to the parties that our preliminary review indicated
9 that the basic premises and assumptions underlying the Staff
10 at UCLA positions were the subject of dispute and would require
11 a hearing.
12 We encouraged the parties to negotiate to see if
13 it would be possible to simplify or settle some of the issues.
14 And in so doing we asked them to concentrate on basic issues
15 that went to inherent safety of the reactor in question.
16 As we understand it, UCLA and Staff maintain that
17 the University Training Reactor is an inherently safe machine.
18 And it is this assumption that we have found to be disputed.
19 In view of this development it is our intent to complete the
20 evidentiary hearings on the issue of inherent safety and issue
21 a decision as quickly as we possibly can.
22 In light of that we indicated that we would defer
23 consideration of the motions for summary disposition so far
24 as they addressed other issues and take those issues up after
25 having completed the proceedings on the matter of inherent

1 safety. In part we believe the other matters may depend upon
2 the resolution of the issue of inherent safety. We do want
3 to, however, have a least some brief discussion of two con-
4 tentions which are not directly related to inherent safety.
5 One of those is contention two, which maintains that UCLA
6 has applied for the wrong class of license. We are particu-
7 larly interested with regard to that contention as to what
8 difference it might make had UCLA applied for a class 103 as
9 opposed to a class 104 license.
10 The other matter has to do with Contention 17 which
11 raises the issue of seismicity of the site where the reactor
12 is located. On that particular contention we feel that there
13 may be no genuine disputes of fact with regard to the basic
14 seismicity of the site, as opposed to the consequences of
15 that seismicity. So we want to address both of those.
16 But the principal focus of this prehearing conference
17 is to prepare for the evidentiary hearing on the issue of
18 inherent safety. At this point I would like, if I may, to
19 ask counsel to introduce themselves for the record.
20 We could begin with Ms. Woodhead, counsel for Staff.
21 MS. WOODHEAD: Good morning, gentlemen. My name
22 is Colleen Woodhead. I am counsel for teh NRC Staff. And
23 sitting at my right is the Project Manager for the UCLA
24 Research Reactor from the Office of Nuclear Reactor Regulation,
25 Mr. Harold Bernard.

1 JUDGE FRYE: Thank you. Mr. Cormier?

2 MR. CORMIER: Good morning. I am Bill Cormier,

3 attorney representing UCLA in the action. I am assisted by

4 Chris Helwick and Glenn Woods, attorneys from the office of

5 General Cousel of the Regents.

6 JUDGE FRYE: Thank you. Mr. Hirsch?

7 MR. HIRSCH: My name is Daniel Hirsch. I am rep-

8 resentative of the Committee to Bridge the Gap, the Intervenor

9 in this case, accompanied today by John Bay attorney with the

10 Nuclear Law Center.

11 MS. NALIBOFF: Good morning, I am Lynn Naliboff,

12 representing the City of Santa Monica.

13 JUDGE FRYE: Thank you very much. Before we take

14 up the first item on the adgenda, let me ask you if the

15 parties have any preliminary matters they wish to address.

16 I take it not.

17 The first item we had scheduled was to hear a report

18 as to any success that you may have had in negotiations to

19 settle or simplify the issues. I know Mr. Hirsch had furnished

20 us with a copy of a letter which he wrote to the other parties

21 suggesting a meeting. Perhaps in view of that, we should

22 start with you, Mr. Hirsch.

23 MR. HIRSCH: The parties and the City of Santa

24 Monica met by phone conference call to discuss the possibility

25 of settlement and/or simplification of the contentions the

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1 Board directed our attention to. There were no proposals
2 from the Applicant regarding settlement. And so there fortun-
3 ately was nothing to discuss in terms of possible of settlement
4 of any of the matters. In terms of simplification, Committee
5 to Bridge the Gap proposed a grouping of the contentions by
6 category that the Applicant indicated met fairly closely with
7 the categories the Applicant had proposed in its summary dis-
8 position motions. The Staff proposed as a method of simplifi-
9 cation that of the six contentions that the Board had directed
10 the parties to go to hearing regarding adherence safety, that
11 we either drop or defer five of those contentions and go into
12 hearing initially at least solely on Contention 15. We were
13 unable to reach agreement on that. The position of Bridge
14 the Gap being that each of those contentions relates to discrete
15 matters regarding inherent safety, and that we were reluctant
16 to drop five of our six contentions voluntarily when that
17 effect had not been accomplished through the summary disposition
18 motions off the other parties.
19 JUDGE FRYE: This was Staff's suggestion, you say?
20 MR. HIRSCH: Staff, the University, however, joined
21 in that suggestion after the Staff made it. So essentially
22 we have the Bridge the Gap proposal of grouping of the conten-
23 tions and the Staff proposal to drop or defer all but Conten-
24 tion 15, from the initial hearing.
25 JUDGE FRYE: Ms. Woodhead, do you want to comment?

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1 MS. WOODHEAD: Yes, if I may. Perhaps I can expand
2 a little bit on Mr. Hirsch's explanation of our conference
3 call. We had discussed -- I believe we all see eye-to-eye
4 -- on the fact that there are two major safety issues that
5 arise from the list of contentions here. One concerns normal
6 operation, the safety of normal operation. The other is
7 maximum credible accident for this reactor. Rather than try
8 to litigate the contentions indicated by the Board to be those
9 concerned with safety, because they are not all directed exactly
10 to safety -- for instance, Contention 8 challenges the accuracy
11 of the hazards analysis . . the application which is not exactly
12 raising a safey issue of maximum credible accident and what
13 its consequences might be. So I thought it might be simpler
14 to take the one contention which in general terms raises the
15 two issues of normal operation and the maximum credible
16 accident, and start with that. And after we discussed various
17 ways of accommodating these two issues in a simpler way than
18 taking several contentions separately, we then discussed what
19 we projected in terms of time for hearing and the number of
20 witnesses and their availability and things like this.
21 But as I recall, we were trying to come up with some
22 simple way to reach these two issues. And it was only 15
23 that I could find that had these two issues in it.
24 We also discussed the possibility of just posing
25 those two issues separate and apart. I don't believe Mr.

1 Hirsch agreed to that, but that was part of our discussion.
2 But at any rate, that was our objective, to see how we could
3 get to these central safety issues simply without getting
4 confused with some of the other ancillary issues which are
5 contained in practically every contention.
6 JUDGE FRYE: So it is basically an effort, then,
7 as I take it, to try to focus the hearing on the issue of
8 inherent safety to the exclusion of any other collateral mat-
9 ters that might be bound up in the contentions that go to that
10 question?
11 MS. WOODHEAD: That is true. In my view it is two
12 sides of a coin to address an issue called inherent safety
13 is different from addressing the two issues of the effects
14 of normal operation and determining what is a maximum credible
15 accident and its consequences. It is rather to my mind like
16 proving a negative to prove that something is inherently safe.
17 It seems to me to go beyond what this proceeding is about.
18 And to take the other point of view, which is to ask what the
19 effects of normal operation are and what the maximum credible
20 accident consequences are is a more specific way of dealing
21 with the safety issue than to try to prove that it is inherently
22 safe. That, to my mind, brings up many more ancillary issues
23 than the two discrete issues of normal and accident emissions.
24 MR. LUEBKE: Are you saying, Ms. Woodhead, it doesn't
25 have to be inherently safe?

1 MS. WOODHEAD: Well, that is true. It does not have
2 to be inherently safe.
3 MR. LUEBKE: I am listening correctly. In 1960 it
4 was supposed to be?
5 MS. WOODHEAD: That is right. That has been the
6 viewpoint. But to litigate something like that seems to me
7 to be very difficult. We usually look at safety issues in
8 terms of discrete and specific consequences which can occur
9 from certain events, rather than trying to prove a vaguer idea
10 of inherent safety.
11 MR. LUEBKE: This is in nonpower reactors, when you
12 say usually?
13 MS. WOODHEAD: No, I am speaking of power and non-
14 power reactors. In our view of safety we look at specific
15 issues such as the maximum credible accident and normal oper-
16 ating emissions.
17 JUDGE FRYE: Yes, Mr. Cormier.
18 MR. CORMIER: Judge Frye, there is a distinction
19 that can be made that I think may be useful. I think that
20 perhaps this is what Staff counsel is getting at. The phrase
21 "inherently safe" is to my mind somewhat meaningless phrase.
22 I don't know precisely what it means. Is a tricycle inher-
23 ently safe? Well, that depends on how you look at it. A
24 tricycle can certainly cause damage to something. But you may
25 be inclined to say that a tricycle is inherently safe in

1 another more common sense way.

2 What was described in the 1960 studies of the reactor,
3 what is described now with more data with regarding this reac-
4 tor, and what was described in the University's motion for
5 summary disposition was a situation where you had a reactor
6 that because of certain inherent self-limiting characteristics
7 the reactor itself did not pose any credible risk to public
8 health and safety. That is a nuance. That is slightly dif-
9 ferent. The emphasis is on the inherent self-limiting charac-
10 teristics of the reactor, not a conclusionary thing that the
11 thing is inherently safe, because I don't know what that means.
12 That is an expression that doesn't have much content for me.
13 The inherent self-limiting characteristics, of course, are
14 certain things that are dependent upon the laws of physics.
15 That is what you mean by inherently self-limiting. Certain
16 phenomena that are well-understood will kick in to prevent
17 this thing from causing any harm to the public. If we under-
18 stand it in that sense, I think that the University knows how
19 it is prepared to go forward and demonstrate that proposition.
20 But the "inherently safe" is a concept that doesn't provide
21 us with any information or any useful direction in how we
22 ought to proceed.

23 JUDGE FRYE: I don't perceive that your concept is
24 too different from the Board's concept. I think what we were
25 concerned with is as we understand it UCLA and Staff's position

is that the reactor has certain limiting features, so that if you happen unfortunately to have a transient the reactor shuts itself down without having any adverse consequences.

MR. CORMIER: That is exactly the case.

JUDGE FRYE: That is exactly what we were talking about. Now, Mr. Hirsch's people say that isn't so. And that is the issue that we need to get at.

MR. CORMIER: Yes, but again, I think it would be helpful if we, except in a common sense sort of way, do not use or focus on the expression "inherently safe." If in fact, first of all, we are talking about harm to the public, Certainly situations can arise, I can think of small trivial ones, where there is -- we had one ten years ago, a corroded pipe that had to be replaced. Workers had to go in and remove the shield blocks and replace the corroded pipe. And they experienced small doses, well within the limits, of radiation. Does that mean the reactor is not inherently safe or not? I don't know what that means. That is why the expression is not helpful.

JUDGE FRYE: All right. We were concerned basically about transients.

MR. CORMIER: And we are talking about harm, of course, to the public, public health and safety. That is the scope of Intervenor's interest in this proceeding anyway. And I think that needs to be clarified, too, as we go along.

1 MR. LUEBKE: Well, operating personnel within reason.
2 MR. CORMIER: Well, we are concerned with that. But
3 I think there is a legal principle involved here. Intervenor's
4 scope of participation and interest does not extend to the
5 workers. We are not going to -- obviously we are going to
6 get into that. But we ought to be clear about that. We are
7 limited by the scope of interest of the participating Intervenor.
8 JUDGE FRYE: Well, let's ask Mr. Hirsch. Do you
9 view your interest as extending to the people working at the
10 reactor?
11 MR. HIRSCH: It is a little complicated in that many
12 of the people working at the reactor are students, which is
13 part of our constituency, part of the interest that we are
14 trying to represent. So let me back up on that for one minute,
15 and then get back to it. I think the distinction Mr. Cormier
16 is making about exposures to workers falls not in the issue
17 of inherent safety, but in terms of the doses during normal
18 operation. During the normal operation over a 20 or 40-year
19 period there are certain things that can occur -- radiation
20 exposures due to taking fuel in or out, or of greater concern
21 the argon and the gamma neutron shine. As I understand the
22 Board's ruling, that is set aside for a second stage of hearing.
23 JUDGE FRYE: That was our intent.
24 MR. HIRSCH: And the inherent safety issue, as I
25 understand it, deals with whether a major accident can occur,

1 and deals with the direct assertion by the Staff and the
2 Applicant that it cannot.
3 JUDGE FRYE: Cannot.
4 MR. HIRSCH: By the laws of nature, the laws of
5 physics, it is impossible. And it makes a good deal of sense
6 to us for that issue to be addressed. The Staff and Applicant
7 claim that it cannot. If that is true, then that changes a
8 good deal of the contentions the Board has pointed out. How,
9 we would have to see at that point. But I think that the
10 fundamental argument of the staff and applicant that it is a
11 research reactor, and like research reactors are supposed to
12 be designed, they are supposed to be such that if you have
13 students who make mistakes, or if the postulated idiot, as
14 they say, is at the control, then nothing serious can happen.
15 That was the original theory behind research reactors. It is
16 the theory the Staff and Applicant claim is still valid for
17 this one. And it makes sense to the Intervenor for that issue
18 to be addressed directly.
19 JUDGE FRYE: It was our intent to address that issue
20 first. And the issue really goes to transients rather than to
21 normal operation. I think normal operations will be part of
22 the case that we wanted to defer until we dealt with this
23 issue, as we characterize it, of inherent safety, as Mr.
24 Cormier characterizes it of being inherently self-limiting
25 so that no harm results from a transient. That is the issue

1 that we wanted to get at initially. So with that clarification
2 is everybody working on the same track now?
3 MR. HIRSCH: If I might make an inquiry, when one
4 refers to transients one is not merely referring to a power
5 excursion which is often considered transient, but to any of
6 the series of major accidents that could occur -- fire, earth-
7 quake and so forth.
8 JUDGE FRYE: That is right.
9 MS. WOODHEAD: I guess I would need a little clar-
10 ification. Does the Board propose to define the various
11 transients that --
12 JUDGE FRYE: No. We are going to let the parties
13 do that as they go along, and as Mr. Hirsch has already defined
14 them in his contentions. Obviously we are dealing with Mr.
15 Hirsch's contentions. And he has referred in his contentions
16 to a number of transients. And the material that he filed
17 in response to a summary disposition refers to a number of
18 them. The overall boundary has to be the contention. And
19 within that boundary I think we have to look to what Mr.
20 Hirsch's allegations are, what CBG's allegations are.
21 Let me come back to the issue of settlement for a
22 moment, if we are through with that. Just for our own edifi-
23 cation, Mr. Hirsch, let me ask you a question. What is CBG's
24 position with regard to the original limiting characteristics
25 of this reactor? In other words, 10 kilowatts, and I think

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1 it was .6 percent delta k over k excess reactivity.

2 MR. HIRSCH: Our position is that that would improve

3 the situation. There are a number of safety problems that

4 would remain, however. For example, fire.

5 JUDGE FRYE: No, but I am just talking about excess

6 reactivity now, aside from other transients.

7 MR. HIRSCH. I would have to consult our technical

8 people to determine whether .6 percent would resolve the

9 problem, particularly in light of that positive graphite

10 coefficient. Well, let me ask the question back. Point 6

11 percent at room temperature? Point 6 percent maximum with

12 the graphite coefficient considered? If it can never get more

13 than .6 percent, that is one thing. If it means, as they do

14 now measuring it at .6 percent at room temperature, that when

15 the water is cold it means larger, or when the graphite is

16 hot it means more, then the .6 percent I would --

17 JUDGE FRYE: You would need to talk to your technical

18 people, in other words.

19 MR. HIRSCH: Right. But we would need to also have

20 issue defined a little more carefully. Point 6 percent, at

21 what temperature?

22 JUDGE FRYE: I was having reference to the original

23 technical specification.

24 MR. HIRSCH: Technical specs, unfortunately there

25 is some confusion there. It says at one point it is .6 percent

at room temperature, and then elsewhere it appears in other places it talks about it when the graphite is very cold. So if you ask us .6 percent and it can never go over that taking into consideration the coldest water or the warmest graphite, that would resolve -- this is tentative, I would have to check with the people -- that would resolve part of the problem regarding negative reactivity removed accidentally. It would not resolve the problem of positive reactivity being accidentally inserted. In other words, no matter what the technical specifications say, one can always drop U-235 into irradiation ports and that will create an excursion. So I am perhaps being too technical at the moment. We would have to see that more specifically.

JUDGE FRYE: You would need to talk to your technical people.

MR. HIRSCH: But also we would have to see that more specifically.

MR. LUEBKE: To summarize this, then, as you view, question even the specification on the initial 1960 documents?

MR. HIRSCH: We question it in so far as the temperature of the moderators are not considered, and the ability to limit positive insertions given the compliance record of the facility. No matter what the tech specs say, that doesn't prevent someone from dropping 250 grams of U-235 into an irradiation port.

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JUDGE FYRE: Well, with the understanding that what we are interested in in this first phase of the hearing is transients and the question of whether the machine is inherently safe, whether it will shut itself down without any adverse consequences in the event it encounters a transient, do you want to proceed to the second topic now on our agenda? That is the amount of time necessary for hearing.

Mr. Hirsch, could I ask you to address that first.

MR. HIRSCH: The parties discussed the matter. Our answers depend, I think, on clarification of a couple of matters by the Board, if that is possible. If our understanding is correct about what the Board means by inherent safety, that the issue, for example, of the argon 41 emissions, normal gamma and neutron shine are not to occur at this stage, which means separating out certain elements of some of the six contentions you have advised.

JUDGE FRYE: Can you identify those particular elements?

MR. HIRSCH: I think the Staff rightly points out the Contention 15 does refer to site characteristics increasing radiation exposure both during accident and during normal operations. And as I understand the intent of the Board's division of the contentions, the issue of how the site characteristics increase radiation doses during the daily operation of the facility would be deferred.

JUDGE FRYE: Yes, daily operation aspects of it would.

MR. HIRSCH: So that last phrase in the umbrella sentence, "end of normal operation," that part would be deferred to another stage.

JUDGE FRYE: Where are you reading?

MR. HIRSCH: 15, the second sentence in the umbrella statement.

JUDGE FRYE: "End of normal operation," that is correct. That portion would be deferred.

MR. HIRSCH: In addition, the Board had indicated that part of Contention 13 it wished to have addressed in the first stage. And there are some problems involved with that that would affect timing. And I guess at some point we are going to have to have that clarified as well. I can give you the overall answer, I guess, to amount of time needed, based on our assumption.

JUDGE FRYE: Just hold for just a second. Dr. Luebke's chair has arrived. Let's go off the record for a minute.

(Discussion off the record.)

JUDGE FRYE: On the record.

MR. HIRSCH: The discussion that we had with the other parties was based on the following assumption. I will just answer the question in that sense, and then if the assumption changes we will have to modify it.

On the assumption that we go to hearing on the six

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1 inherent safety contentions as addressed by the Board in its
2 order, and that issues of normal operation are not included,
3 and leaving aside the question of Contention 13, which is
4 a complicated question, which we will get to in a minute.
5 Assuming that we go to hearing on those six issues, the NRC
6 Staff indicated to us, counsel for the staff, that they thought
7 the cross-examination by staff of Intervenor's witnesses would
8 take at maximum a day. The Applicant set for itself a maximum
9 of a day and a half. We felt that we needed a minimum of one
10 week for our cross-examination. The discussion that went
11 ahead between the parties indicated that we should probably
12 schedule, the opinion was of Staff and Applicant, for two
13 weeks, hoping to accomplish in a week and a half. Intervenor
14 is not that confident that that can be accomplished. If
15 Staff and Applicant indeed only do about a day of cross-exam-
16 ination, then perhaps -- and it is hard to predict that the
17 amount of Board questions and the amount of recross and redirect,
18 and also there is the issue of the rebuttal and surrebuttal
19 and the questions that the Board has asked regarding roundtable.
20 So Bridge the Gap's position at this point is that we think
21 that probably three weeks should be set aside, and that we
22 should hope to try to finish it in a week and a half to two
23 weeks. That three weeks should be set aside in case we do
24 not.
25 JUDGE FRYE: Now, do you want to take up Contention 13

now, or is it best to defer that?

MR. HIRSCH: It is up to you.

JUDGE FRYE: Well, we have got to get to it sooner or later. Let me ask, are there other portions of other contentions that the parties agree do not, are not relevant to this initial phase?

MR. HIRSCH: We have some question regarding parts of Contention 12, which is the contention regarding the inadequate engineered safety features. And some of that we see as relevant to the question of inherent safety. In other words, do you need a containment structure. The position of Staff and Applicant is that you don't because the facility is inherently safe. Part of the contention deals with a history of fuel failures, history of control blade problems, which seem to us as we understand the Board's order, to more fit into that other phase which deals with the operating history, the violations, administrative controls. We may be not understanding something.

JUDGE FRYE: Well, now, as we read some of the materials that were submitted by CBG, my recollection is that a fair amount of discussion went to the possibility of either a transient occurring at the same time as a failure of a control blade, or resulting from the failure of a control blade.

MR. HIRSCH: Let me respond. Yes, obviously the

1 issue of a potential accident sequences that can occur from
2 failure of control blade mechanism or from torquing, manually
3 torquing one that is stuck, or the difficulty from the graphite
4 in terms of Wigner absorption, or possibly as a fuel failure
5 involving cladding, degradation, or increasing coolant space,
6 reactivity excursion resulting from that. Those we did men-
7 tion we do feel a part of this first stage of the hearing.
8 I guess what we thought we understood, and we need
9 clarification on this, what we thought the Board wants to deal
10 with is is the reactor inherently safe against an accident,
11 even if there is a fuel failure, even if there is a problem
12 with the control blade. And that then to deal with the actual
13 history of the control blade failure would be, I would assume,
14 if the Board found that yes control blade failures could dam-
15 age the facility, then we would address the issue of whether
16 or not there has been sufficient maintenance of the control
17 blades, and procedures for what to do in case they are stuck.
18 I know that is a fine distinction. I guess it is the matter
19 between the theoretical possibility of an accident occurring
20 because of the inherent nature of the facility versus the
21 actual compliance record of the facility regarding those devices.
22 JUDGE FRYE: I think that probably hits it very well.
23 We would not want to get into control blades, for example,
24 to the extent that this goes to questions of normal operation.
25 As I said, we want to talk about transients. And to the extent

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1 that a control blade failure is relevant to a postulated
2 transient, then I think we need to get into it at this stage,
3 rather than to put it off.
4 Now that may be a fine distinction. Mr. Cormier?
5 MR. CORMIER: I must confess I got lost about three
6 or four minutes ago. Maybe it would be simpler if I state
7 what I think at this point in time will be the type of presenta-
8 tion the University hopes to be able to make.
9 We really have felt that there is a lot of redundancy
10 in these contentions. Moreover, we were hopeful that as a
11 result of the summary disposition phase we would get a succinct
12 preferably short statement of the material facts in dispute.
13 So we know precisely what it is the Board wants demonstrated.
14 I hope we can talk about that later. Maybe all we need is
15 a little clarification. It is along the lines of, if I under-
16 stand correctly, the staff's February 4th motion for clarifi-
17 cation of the agenda. I think they mentioned there, and I
18 know the Board did respond to it. I am not sure that I am
19 completely clear on what is our burden for the hearing. But
20 leaving that aside for a moment, University would hope to go
21 in and to start out with the basic engineering principles that
22 establish the self-limiting character of this reactor. We
23 would want to extend that and take it through a series of
24 scenarios, not just transients, but what is the possibility
25 that this thing can catch on fire. Is Wigner energy a serious

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1 concern? Run through the gammut of that. Necessarily, I
2 believe, we are going to have to get involved with things like
3 do stuck control blades present a problem. I think you can't
4 ignore that question and talk about whether this thing is
5 safe or not, from an accident point of view. To get involved
6 with that I think we are probably going to get into the history
7 of the control blade problem, since that is the basis for CBG's
8 assertion that "Look, these accidents can occur." We have
9 got to be able to say, "Look, here is what really happened.
10 There is no way this stuck control blade could lead to anything
11 of consequence." We will show that historically these few
12 instances there were of a stuck control blades which actually
13 proved the point, and not to the contrary, that this really
14 represents a problem. They prove in fact that it doesn't
15 represent a problem.
16 And then we will have to talk more theoretically
17 about what other possible stuck control blade situations would
18 you want to be concerned about when you are trying to decide
19 whether there is an accident that poses a risk to the public.
20 We would go through that in an outline format as best that
21 we could anticipating all the points that CBG has brought up
22 through the course of this long proceeding. But I don't expect
23 that we are going to pay particular attention to the precise
24 statement of contentions here.
25 As I understand it, our burden is to provide the

1 Board and the Commission with enough information that the
2 Board can conclude with reasonable assurance that this facility
3 does not pose a risk to the public.
4 We have argued that a lot of this, frankly, is
5 redundant, some it doesn't make sense. And we are not going
6 to torture our presentation and tie it to the statement of
7 contentions. I really think trying to decide which part of
8 contentions we are going to go forward with right now is not
9 terribly productive.
10 JUDGE FRYE: You have got to remember, though, that
11 our jurisdiction is to decide issues in controversy. The
12 issues in controversy are the contentions.
13 MR. CORMIER: Right. But I think that is a second
14 step. I would think that the basis of a presentation that
15 goes through this in an order that we think is more presentable
16 to the Board, more understandable, then we go back and look
17 at these contentions, go down them in order, if you want,
18 say "Look, this was answered. This part of the presentation,
19 or this evidence by the University answered this aspect of
20 this contention."
21 JUDGE FRYE: What you are saying, then, is rather
22 than approaching it at a hearing contention by contention,
23 you would bring in witness A who would address Contention 1,
24 and witness B Contention 2, and so on. You want to make a
25 presentation that will cover all of the contentions simultaneously

1 MR. CORMIER: Exactly. I think the ordering is the
2 way we proposed in our summary disposition motion, which,
3 if I understand the Board's order, has been more or less
4 adopted by the Board. There are two basic key safety areas.
5 One having to do with what is the maximum credible accident?
6 Does it pose any risk to the public? And secondly, what occurs
7 during normal operation, for instance with the argon 41 emis-
8 sions and other effects, radiation effects, does that pose
9 a risk to the public? With that key division we are going
10 to take the first one, lump together the maximum credible
11 accident, which I think is Contention 19, we are going to have
12 to talk about the 1960 hazard analysis, explain why that is
13 so misunderstood, which I think is Contention 8. We are going
14 to start off with a discussion of the excess reactivity argu-
15 ment and possibility of transients, which is Contention 5,
16 and parts of other contentions. But we are not going to look
17 at Contention 5 then 8, or whatever. We are going to organize
18 it in a way that meets the burden of demonstrating that the
19 maximum credible accident does not pose risk to the public.
20 And we would hope to cover all the contentions that way
21 MR. LUEBKE: Mr. Cormier, in this presentation you
22 outline sometime in the 1960's you went from 10 kilowatts to
23 100 kilowatts and from .6 excess reactivity with some more
24 words --
25 MR. CORMIER: 2.3 percent.

MR. LUEBKE: -- at 2.3 percent. And are you planning to explain how and why this occurred? Because to me it is possible that the original 1960 specifications may not have cared what the maximum credible accident was. In other words, the device was immune. Whereas by 1967 it made a difference. And then we did have to debate and discuss and decide what the maximum credible accident is.

MR. CORMIER: I have two responses to that, Dr. Luebke, the short one and the long one. The short one is in a lot of respects that is really irrelevant. We have enough information now today on the basis of the series of studies that was done in the '60's and '70's and the generic analyses done by the Staff recently that allows us to make conclusions on the basis of better evidence than was available to the researchers in 1957 and '58 and '59, which provided the core information for that 1960 hazard analysis.

Having said that, and we intend to rely on that, having said that, for historical purposes, and to provide a perspective on this thing, we intend to comment on that. And the comments are fairly straight-forward. What occurred with the 1960 hazard analysis starting at 0.6 percent excess reactivity at 10 kilowatts power, is in a way analogous and comparable to what occurrs with a power reactor. And I don't want to stretch that, because we have been distinguishing ourselves and power reactors. But you start off at a low

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power for a period of time before you crank up to higher power. It is as simple as that. And conservatively, acting conservatively, they established a very conservative standard for the research reactor, and ran at 10 kilowatts for I think in our case it was something like three years. I don't know the history of the other Argonaut reactors, what it was. And then realized that there was sufficient information -- it was a new device -- sufficient information to crank it on up to 100 kilowatts. In fact it has been cranked up to much higher than that, 500 kilowatts for an occasion in our case. And I don't know what has occurred at other reactor facilities.

That is one aspect of it. The other aspect of it is that they simply didn't have the benefits of a series of tests, the SPERT test principally, that were done more or less after that hazard analysis was written. They didn't have that information. And that information is most helpful in deciding the basic technology and the engineering features of this reactor.

MR. LUEBKE: I suspect your use of the word "simply" is probably open to dispute.

MR. CORMIER: I am sure it is. I find nothing in this proceeding has been simple. I should ban that from my lexicon.

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MR. CORMIER: Does that respond to your question, Dr. Luebke?

JUDGE LUEBKE: Well, did you say that you would in your presentation go through the process of what happened in 1960 to get from 10 to 12 watts? You said it was irrelevant, which implied you weren't going to talk about it.

MR. CORMIER: Yes. No, I said there was a short answer and a long answer. I think in one respect that is interesting for historical reasons, and we hope to go into it. Without pulling the authors of those reports before the Board, which we don't have the capacity to do, we can't get into the mind of the analysts or the researchers who wrote those reports. So a lot of what we're going to say is our understanding of what occurred in the late Fifties and early Sixties.

That reporter, the basic parts of that report were written generically for a series of Argonaut reactors and replicated at UCLA. The principal author of that '60 Hazard Analysis, I believe a Mr. Duncan, was not a UCLA employee or a representative at that time. He had done a series of generic analyses for at least the University of Florida if not the others, probably the others, on behalf of the University of Florida and the manufacturer of the facility. We are going to be limited to the extent we can probe his mind as to the reasons of what was going through him when he produced the analysis.

JUDGE LUEBKE: Well, I think we are more concerned with consequences. And I think we would like to have it in the record because without that information, the Board may be handicapped in making its decision.

MR. CORMIER: Well, we would hope to be able to demonstrate to the Board that you ought not to feel handicapped by that. And we understand that burden, and we --

JUDGE LUEBKE: I think the Board disagrees. The Board would not like to have the record deficient in these matters.

MR. CORMIER: I believe I understand, Dr. Luebke. And to the extent that we can go into that, to the extent that we have information, we are certainly going to put it before the Board.

JUDGE FRYE: Well, let me say, coming back to your original point, that I think you are absolutely right in approaching the testimony as you are approaching it. I don't in my mind see how it can be effectively taken up contention by contention. I think it has to be addressed pretty much as a whole.

The purpose of going through the contentions to eliminate from them the matters which are deferred would be so that everyone knows what the outside parameters of this particular phase of the proceeding will be, since obviously it is the contentions which define the scope of this proceeding.

MR. CORMIER: And, Judge Frye, that is where I got lost when Mr. Hirsch started to go into Contention XII and a few of the others, on what he was leaving out or what he was putting in. I plead that I don't understand that.

JUDGE FRYE: Okay. Ms. Woodhead, do you have any points at this point?

MS. WOODHEAD: My fear is that if we present testimony on a maximum credible accident, which I think is the simplest and most effective way of getting to the inherent safety of the Argonaut, is to testify on the consequences from the maximum credible accident, then all the contentions that deal with safety are met.

There are so many subparts for each contention that my fear is that we present comprehensive testimony on the maximum credible accident and are confronted with an issue that has not been thought of yet.

In CBG's submissions in response to summary disposition, they affiants raised several possibilities of things which we had not heard of before, such as wrenching out a control blade that is stuck. Why a responsible person would want to do that, I don't know. But that is a new issue, a new idea, that we had not been confronted with before.

I don't know how to deal with new what-if's, new possibilities that might be raised in response to comprehensive testimony.

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1 JUDGE LUEBKE: It's easy. If the machine is inher-
2 ently safe, it doesn't matter.
3 MS. WOODHEAD: That's why the words "inherent
4 safety" are too vague, in my opinion, to litigate.
5 JUDGE LUEBKE: Well, you can add the whole para-
6 graph to it. That's a shorthand.
7 MS. WOODHEAD: Yes.
8 JUDGE LUEBKE: But if it's inherently safe with the
9 description Mr. Cormier gave before, then perhaps some of
10 these things that people think up or forget to think up just
11 don't matter.
12 MS. WOODHEAD: That would be my view. That would
13 be my view.
14 I think there is only one issue, and that is: what
15 is the worst thing that can happen in an Argonaut. And then
16 to discuss it.
17 JUDGE FRYE: That, I think, is what we are trying
18 to get at. And that, I think, is the way Mr. Cormier under-
19 stands it and I think is also the way Mr. Hirsch understands
20 it and Ms. Naliboff.
21 We are concerned about whether the machine -- Mr.
22 Cormier, correct me if I do this wrong -- but is the machine
23 inherently self-limiting so that no matter what happens, it
24 shuts itself down and nothing happens adverse to anyone?
25 MS. WOODHEAD: Well, perhaps I had better stop right

here then, because I'm not really understanding you. When you use the word "transient," we are thinking only about power excursions. Are you including in your conceptualization such things as an earthquake which crushes the core? Now, that is not a transient. That is an accident. Fires are not transient; they are accidents. That's why to limit it to transients, at least in the way we understand the word, means only excess reactivity power excursions during operation of the reactor. And in the Battelle Report we tried to accommodate every accident we thought was credible.

JUDGE LUEBKE: Well, again, if the machine is really safe, the earthquake situation shouldn't be troublesome, the fire situation shouldn't be troublesome.

JUDGE PARIS: Well, the earthquake might be troublesome, but perhaps not because of radioactivity.

JUDGE FRYE: I think, though, that Ms. Woodhead's point is perhaps a good one in that she raises the point that if you have, say, the postulated 750 guillotine breaks in the fuel, which I believe Mr. Hawleyl's study talks about, that could result from an earthquake with the machine totally turned off. You know, not running at all. And I think that's a point that we have to get settled.

And it was my understanding -- and I want to hear from the others, the parties. But my understanding was that we would get into those matters as well as transients in this

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1 phase of the proceeding. But let me hear the views of the
2 parties as to whether they feel that that's appropriate or
3 whether they feel it would be better to defer this matter.
4 MR. HIRSCH: It is the opinion of the Intervenor
5 that that is not only appropriate but essential. As I under-
6 stand the arguments by the other parties, no accident or no
7 major event can occur that could cause any significant hazard
8 to the public because the fuel is designed such that even if
9 the earthquake occurred, they argue that not much would get
10 out; that the original Hazards Analysis says it can't catch
11 fire because none of the materials of reactor construction are
12 combustible. There is now an argument that it can't catch
13 fire because there is not enough air possibly present.
14 And down each one of the accidents, there is essen-
15 tially an argument by the Staff and the Applicant that the
16 event cannot cause any serious effect to the public. And
17 that's how I understand what the Board means by "inherent
18 safety": that because of the laws of physics, the fuel will
19 hold the fission products in in case it's crushed; because of
20 the laws of physics, it cannot catch fire; because of the
21 laws of physics, Wigner energy cannot possibly be stored in
22 large enough amounts to be a problem; and so on.
23 So as we understand what the Board had in mind, the
24 issue of what major event could possibly cause serious off-
25 site consequences, the assertion by Staff and Applicant that

it is not physically possible is what we go to hearing on at first.

JUDGE LUEBKE: You might add to this list that the fission product inventory is so low, it doesn't matter.

MR. HIRSCH: That argument hasn't been put forth yet, as I understand it. But if that were, that would be another argument. As you put it, Judge Luebke, I believe at our first hearing, the question is "How much is in the bottle?" And that raises two questions: Can the bottle break? And is there enough inside to cause any problem?

JUDGE FRYE: Mr. Cormier?

MR. CORMIER: I in certain respects would want to disassociate myself with certain of the comments of Mr. Hirsch. But he did say that what we are concerned with are events that cannot cause any serious consequences to the public, the demonstration of that. And as we understand it, we are prepared to go forward on that basis.

JUDGE FRYE: As Ms. Woodhead put it, on both the transient situation and the accident situation, such as an earthquake with the machine turned off.

MR. CORMIER: Yes.

JUDGE FRYE: Fine.

Ms. Woodhead, you agree that it's best to take those two subjects up together? There is no reason to defer the accident situation at this point?

MS. WOODHEAD: No. In our view one of the maximum credible accidents might be a power excusion.

JUDGE FRYE: Well, we're going into that.

MS. WOODHEAD: Yes, right.

JUDGE FRYE: My question is: is there a reason to put off taking up the situation that doesn't involve a power excursion or a transient at this point?

MS. WOODHEAD: No, I think it's much better to deal with any and all credible accidents at one time.

JUDGE FRYE: Okay, good.

Ms. Naliboff, are you with us to this point?

MS. NALIBOFF: Yes.

JUDGE FRYE: Good.

Well, I think at that point, then perhaps the next thing for us to do is to then go through these contentions and eliminate from them those matters which are not relevant to those subjects for purposes of this initial hearing.

Mr. Hirsch?

MR. HIRSCH: I think it might be possible to do that without having to go point by point, but to come up simply with two or three general principles of what is deferred. May I am in error on that. But as I understand it, what is deferred will be things dealing with normal operation.

For example, there is a statement of material fact regarding Contention XII that no interlocks are necessary

because the radiation dose is only one milligram per hour in the reactor room, which we have contended if off by several orders of magnitude. It seems to me that that issue goes to the question of what the normal emissions are like. And, therefore, that aspect of interlocks that deals with normal operations would be deferred. But that aspect of interlocks that deals with protecting against a major accident would go to hearing at this stage. Maybe I am misreading you at that point.

I will give another example. Some of the statements of material facts put forth by the Staff and Applicant regarding the contentions, the six that the Board has identified as inherent safety, repeat some of the statements of material fact included in some of the other contentions: that no incident has occurred to date of any significance. It seems to me that if we deal with that now, we open up that whole ball of wax of violations.

JUDGE FRYE: Well, I don't want us to open up the whole ball of wax.

On the other hand, I think it's clear -- and we said so in the Memorandum and Order that we issued earlier this month -- that some of the results that come from this first phase are obviously going to be relevant to some of the contentions that have been deferred. And we don't intend to go back through that again.

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1 MR. HIRSCH: I guess what we would need is we would
2 have to know when we have to put forth that case. If we are
3 asked at this stage to put forth the case as to what the
4 operating history has been like, that's a rather large matter
5 with a lot of different witnesses.
6 As I understand what you mean by "inherent safety,"
7 it means even if mistakes are made, the thing is safe. But
8 if we have to argue some of the statements of material fact,
9 that no one would be stupid enough to make that mistake or
10 that the technical specifications are such that the radiation
11 use committee would have to review it in advance, it seems to
12 me that issue of human factors is not inherent safety. And
13 that's what we would deal with at that stage of administrative
14 and managerial controls, violations, and so on.
15 I guess we need to know, when we put forth the peo-
16 ple who will deal with the degree of compliance, whether com-
17 pliance can be relied upon to protect against an accident.
18 As I understand what the Board wishes on inherent safety, com-
19 pliance is not at this stage. What it wants to know is even
20 if there isn't compliance, even if things aren't maintained
21 properly, whether the reactor is designed so that nothing
22 serious can happen. After making a determination of that, we
23 would then have to deal with the question about whether or not
24 there would be compensating features: good administrative
25 controls, strict obedience to the Regulations, and so forth,

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that could compensate for some degree of lack of inherent safety, if that was determined.

But if we have to now deal with the question of whether or not the radiation use committee would ever fail to review an experiment that could be dangerous, that seems to me outside of inherent safety and would bring in that whole set of contentions regarding administrative controls.

JUDGE FRYE: I would agree with you that it probably is outside the issue of inherent safety.

I don't know how to get at this, frankly, other than to go through it by the contentions. And why don't we take a break at this point, and perhaps that will give the parties an opportunity to take a look at the contentions and how they want to proceed. But it would seem to me that the basic way to get at it is to go through these six contentions and say this part of it is relevant to the deferred portion of this proceeding, and this part we're taking up now, and attack it on that basis.

MR. HIRSCH: Might I suggest that we also look at the statements of material fact that were put forth on those contentions? Because that is what troubles us more, actually, than the statement of the contention. Some of the statements of material facts, if we are going to have to deal with them at this stage, involve --

JUDGE FRYE: Let's get the contention first.

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MR. HIRSCH: All right.

JUDGE FRYE: And then we will worry about statements of fact second.

Why don't we take about a 15-minute break at this point.

(Brief recess.)

JUDGE FRYE: Can we go back on the record, please?

Shall we start with Contention V? Contention V has to do with excess reactivity. Does anyone want to take the lead on this, or shall we just go through it line by line?

MR. CORMIER: Without looking at it line by line, the University has assumed that certainly Contention V, as it deals with the excess-reactivity situation, is one of the key issues that ought to be discussed in the first phase. Indeed, it would probably be the first. It relates to the '60 Hazard Analysis. It relates to a large part of the Battelle study. And I don't think that there would be anything in here that would require deferring to a second phase. But I defer to the other parties on that.

JUDGE FRYE: Ms. Woodhead, do you see anything in V that should be deferred?

MS. WOODHEAD: No, I don't. But I would like to propose that perhaps we could use just the umbrella statements of each contention and eliminate the subparts, which are really just particular bases for the assertion in the umbrella

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1 sentence. That has always been something I wish we could do,
2 since it does set a general issue, and the subparts are small
3 details of possibilities that relate to the umbrella sentence.
4 JUDGE FRYE: Give it some specificity, basically.
5 MS. WOODHEAD: Right.
6 JUDGE FRYE: But you want to eliminate everything
7 but the umbrella?
8 MS. WOODHEAD: It seems to me a good way to simplify
9 the matter of approaching the issue.
10 JUDGE PARIS: When you say "eliminate," what do you
11 mean? It is not clear to me.
12 (No response.)
13 JUDGE FRYE: I assume what you are saying is that
14 we would take the opening paragraph, "The amount of excess
15 reactivity which is permitted by the Technical Specifica-
16 tions," et cetera. Then it finishes up, "Specifically:"
17 and we go 1 through 14. You would eliminate 1 through 14.
18 MS. WOODHEAD: Yes, as particular matters to ad-
19 dress. Because if you address thoroughly the umbrella sen-
20 tence, then you have addressed the issue in its entirety.
21 JUDGE PARIS: Well, if Mr. Hirsch wanted to present
22 evidence with respect to, say, Item 5, and you had not in-
23 cluded that in your testimony, would you object that it was
24 irrelevant?
25 It is not clear to me how you are going to deal with

this.

MS. WOODHEAD: It seems to me that to present comprehensive testimony, one must necessarily deal with everything in the subparts. And certainly Subpart 5 is central to the issue. That is really a redundancy to the umbrella sentence, which simply states that the excess reactivity is too high. And this gets into it more specifically. It just seems to me that it's easier to handle.

JUDGE PARIS: Oh, you don't want to focus your testimony on 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and so on. Is that it?

MS. WOODHEAD: That's correct.

JUDGE PARIS: But you intend to cover 1, 2, 3, 4, 5, 6, 7, 8, 9 and so on.

MS. WOODHEAD: Oh yes.

JUDGE PARIS: All right.

JUDGE FRYE: So all you are really saying is that you want to say that the witness is addressing Contention V, Paragraph 3.

(No response.)

JUDGE FRYE: In other words, you submit the testimony of your witness will cover all of Contention V, address all of these points at one point or another within that testimony, without specifically identifying where the witness is addressing Paragraph 8 under Contention V.

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MS. WOODHEAD: That is correct. That is correct, yes.

JUDGE FRYE: Mr. Hirsch?

MR. HIRSCH: I suspect we don't have any problem with that. The central issue on V is whether there can be a power excursion caused by a reactivity insertion. And for the Applicant to meet its burden of proof, it is going to have to deal with the issues that we have raised in the subparts. I don't see how it solves anything to take them out or leave them in. I think it gives us at least an idea of some of the specifics that will have to be addressed in testimony. But it will probably pose quite burdensome if everyone had to structure their testimony by each of the subparts. But I think they have to be addressed at some point because there is no way of resolving the overall issue without addressing them.

JUDGE FRYE: Mr. Cormier?

MR. CORMIER: Well, I guess I take a middle ground between the two positions. I think that -- without laboring it. But I want to be clear, because it is our burden that we're talking about.

A number of these subparts are really redundant. Let me explain. The umbrella paragraph, as Staff counsel suggests, that represents the issue that ought to be addressed, really does include many of the others. The University is not

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1 going to go in and talk about, as in Subpart 3, 2.3 percent
2 delta k over k could cause melting of the fuel cladding. We
3 are not going to address that point directly.
4 We are going to rely on generic analyses as well as
5 our own analysis that amplifies that or explains that, that
6 shows that in fact the reactor is safe to a much higher limit.
7 Obviously, that includes, in one sense, 2.3 percent.
8 JUDGE FRYE: However you and Staff and CBG wish to
9 address it in the testimony, I think, is really up to you.
10 I think, though, that these points are part of the
11 contention. They give the contention some specificity. And,
12 you know, if you want to just -- Well, as we talked earlier,
13 I think you were going to file testimony that was going to
14 cover all of these contentions rather than filing one piece
15 of testimony for Contention V and one piece of testimony for
16 Contention XIX. That sort of thing I think is really up to
17 the parties.
18 MR. CORMIER: Okay, well let me be more specific
19 about one and just show you that there are problems in here.
20 And I don't want to suggest that they are problems that need
21 to be addressed now. I think they are going to fall into
22 place. But I want to be on the record as showing you there
23 are problems.
24 Take Subpart 2b, "a deflector plate which prevented
25 repeated excursions has been removed." That is simply a

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1 false statement. And there is no evidence for that. There
2 has been no basis provided for that statement. I don't know
3 what we are supposed to do, except tc tell you no, it has not
4 been removed.
5 JUDGE FRYE: Well, your witness, obviously, will
6 address that point.
7 MR. CORMIER: Yes, and that's it.
8 JUDGE FRYE: Probably say the deflector plate has
9 not been removed.
10 Okay. But as to Contention V, then, I think every-
11 one apparently agrees. I guess we haven't heard from you, Mr.
12 Hirsch, yet.
13 MR. HIRSCH: I agree. I just would like to make one
14 clarifying point about No. 13 and see if I am correct about
15 my understanding of Subpart 13: that the issue to be
16 addressed in the first phase is whether or not violating the
17 limits would have any consequences, not whether or not the
18 compliance record has been sufficient. That would go for the
19 second phase, if I understand correctly.
20 JUDGE FRYE: Mr. Cormier, do you want to respond to
21 that?
22 MR. CORMIER: Well, again I don't know what the
23 thrust, the real thrust, of Subpart 13 is. "Applicant has
24 violated excess reactivity limits...." That presents a fac-
25 tual question that certainly is relevant to the second phase

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1 of the proceeding. And there is a response to that.

2 "...suggesting that it is impossible to prevent

3 possible excursions." I guess I don't fully understand the

4 logic of that particular statement.

5 If it is factually correct that an excess reactivity

6 limit has been exceeded, that does not necessarily imply that

7 it is possible to lead to a power excursion, a disastrous

8 power excursion. Logically the two don't fit together. I

9 don't know the thrust of that.

10 That's another reason why again our presentation

11 will be more simple-minded, using that word again. We don't

12 intend to focus directly on that. We are going to show you

13 what the excess reactivity limits are. Then we are going to

14 say, "Look, is it credible to assume that somebody is going

15 to be able to come in here with a quantity of a physical size

16 that somehow they are going to be able to insert in a reac-

17 tor?" I mean, is that credible? I don't know what it means

18 to say whether it's possible to do that. Is it credible to

19 assume that somebody would do that? And leave it at that.

20 I mean, the idea that --

21 JUDGE FRYE: I think what Mr. Hirsch -- if I may

22 interrupt you, I think Mr. Hirsch's question really goes to

23 the fact that this statement 13 implies violations of reac-

24 tivity limits in the past. And his question is do we elimi-

25 nate any testimony going to the question of whether UCLA has

19

1 violated technical specs regarding excess reactivity in the
2 past, for the purposes of this particular phase? In other
3 words, do we defer that?
4 MR. CORMIER: I would assume yes. I mean, it is a
5 violation that they're talking about.
6 MR. HIRSCH: Yes, as I understand it, what we are
7 going to deal with in the first phase is whether it is physi-
8 cally possible, even if somebody violated the Regs, for an
9 incident.
10 If we resolve that, then we will deal with whether
11 or not there have been violations.
12 But does it matter? Is it inherently safe so it
13 doesn't matter?
14 JUDGE FRYE: If it doesn't matter, why go into the
15 possible violations? is what you are saying.
16 MR. HIRSCH: Right.
17 JUDGE LUEBKE: So it is deferrable.
18 JUDGE FRYE: So this 13 would be in fact deferred.
19 MR. HIRSCH: Well, the part that deals with whether
20 there have been violations.
21 The part that says whether it matters if there are
22 violations, I understand, goes ahead.
23 JUDGE FRYE: Are we all on the same track on that
24 one?
25 JUDGE LUEBKE: Except for his last statement.

20

1 Now, you were saying only part of 13. Is that what
2 you said just lately?
3 MR. HIRSCH: Well, what I understand that we will
4 deal with in the first phase is whether it would matter if
5 there were violations.
6 JUDGE LUEBKE: Hm-hm.
7 MR. HIRSCH: And the second phase would deal with --
8 if we have to go to that stage -- whether there have been
9 violations.
10 JUDGE FRYE: So we are not going to get into past
11 history on this particular point. Are we all together?
12 JUDGE LUEBKE: Thirteen is deferred.
13 JUDGE FRYE: I'm not sure we are together.
14 MS. THOMPSON: If I may, Judge Frye, I think what we
15 are addressing here is the difference between the assumption
16 that a violation may occur versus the consequences if it does
17 occur. If we assume for purposes of 13 that a violation has
18 occurred, then what are the consequences? And the conse-
19 quences are all that we are looking at in the first phase.
20 JUDGE FRYE: Yes, that is the way we understand it.
21 I just want to be sure that everyone else understood it that
22 way. We are not going to go into a history of whether or not
23 there have been violations. We are going to talk about what
24 are the consequences of a violation.
25 If we find, as Mr. Hirsch says, that it makes a

difference, then we will go into the history, I suppose. But if we find on the other hand that the reactor is such that it doesn't matter whether someone violates the reactivity specifications, then there is no point in going into the history.

Okay, no other points on Contention V?

(No response.)

JUDGE FRYE: The next one we had listed in our listing was Contention XIX, Maximum Credible and Design Basis Accidents.

Anything in this particular contention that should be deferred for the second phase?

MR. HIRSCH: A question, I guess, about credibility. As I understand what the Board wants to deal with in terms of XIX, it is that portion of XIX that deals with whether or not it is inherently impossible for such an accident to occur.

If it is determined that it is not inherently safe, inherently protected against such an accident -- You know, credibility deals with probability of an incident occurring, trying to estimate failures of engineered features or likelihood of an operator error. And as I understand it, what we are dealing with first with XIX is whether it can occur. The issue of the probability of it occurring is dealt with later.

Maybe I am in error there.

MR. CORMIER: I think that is absolutely wrong, if I may interject. And again I would like to, if I had my way,

22

1 ban the word "possible" or "possibility" from the language,
2 certainly in these proceedings. I think as the Commission has
3 recognized in all its proceedings, what we are talking about
4 is credible accident scenarios. That involves considering
5 the consequences, and then also the probability that those
6 consequences will occur. At some point the credibility or the
7 probability that an event will occur is so small that you may
8 be justified in saying, in a common-sense way, it's impossi-
9 ble. But as a matter of technical precision if not legal
10 precision, the word "possible" is one that is charged with all
11 sorts of difficulties. It is possible that the sun will burn
12 out. When it occurs and whether we ought to plan for it or
13 take, you know, evasive action is another thing.
14 The University is going to demonstrate and believes,
15 in the way it reads the generic analyses, that the likeli-
16 hood -- that is, the probability -- and the consequences,
17 given the various probabilities, are so small that the public
18 is not put at risk from whatever accidents are possible at
19 this facility.
20 JUDGE LUEBKE: Even though the machine is located
21 right in the midst of classrooms for students.
22 MR. CORMIER: Certainly. It's still a question of
23 what are the consequences, and what is the probability of
24 those consequences occurring?
25 JUDGE LUEBKE: And you are going to give numbers.

23

MR. CORMIER: Well, uh --

JUDGE LUEBKE: Not generalities.

MR. CORMIER: I don't know if we're going to give precise numbers. I don't think that's needed. But what we are going to -- I mean, there's going to be linear sequence events that have to be considered. Each one has a certain probability which one can posit in a general sense. Taking those all together, that gives you an idea of what the probability of the event is.

I don't think that you are going to find that this thing requires a full probabilistic risk analysis. That's not going to be necessary to demonstrate with respect to any of the accidents that may be deemed credible for this facility.

JUDGE LUEBKE: Well, I guess that's an assumption you can make.

MR. CORMIER: Yes. I mean, that's how we are planning on presenting the case.

JUDGE FRYE: Well, let me come back. Do you see anything in this contention that should be deferred?

MR. HIRSCH: The only question for me is whether the University is now conceding that at lease some accidents are -- or that the facility is not inherently safe; however, its argument is that the probability of serious accidents is small.

If that is what the University is saying, then it

24

1 seems like we almost have an admission that doesn't require
2 that first stage of hearing to set aside.
3 If we are dealing with the question of probability
4 of accidents which are possible, for which the reactor is not
5 inherently safe but which the University says even though it
6 can occur, the chances are too small, that seems to me like
7 we have resolved that first issue. If we haven't, then I
8 think we have to focus on that first question of whether it
9 is inherently safe.
10 And I guess I am getting mixed message.
11 MR. CORMIER: Judge Frye, we stated our case, I
12 thought, fairly clearly in our motion for summary disposition.
13 I can't quote chapter and verse. But it's like I explained
14 earlier. Because of inherent self-limiting characteristics
15 of this reactor, it is not credible --that word implies we are
16 talking about consequences and the probability of those con-
17 sequences -- not credible to assume that an accident could
18 put the public at risk.
19 JUDGE FRYE: Okay, we understand that. And that is
20 the thing that is disputed.
21 MR. CORMIER: That's right.
22 JUDGE FRYE: Okay. That's why we're going to have
23 a hearing.
24 And the only question that we have to deal with now
25 is are there any parts of this contention that don't go to

that particular question and don't go to the proposition that this reactor can put the public at risk?

MR. CORMIER: As you explained it, I have some question about Subpart 1. But the rest, no. Those are maximum credible accidents. I don't think sabotage scenarios are accidents.

JUDGE FRYE: I think sabotage would probably be in the same category as an earthquake, in the sense that it could create possibly or theoretically a situation leading to a release of fission products.

MR. CORMIER: I think you're right. And in a common-sense way, it is going to be addressed.

However, if Mr. Hirsch comes back with some scenario that talks about -- I hate to even raise it in a public forum. There is always some irresponsibility in doing so. But some Third World force of such a magnitude. I can certainly imagine the force of such a magnitude that could overwhelm any facility.

Now, obviously, we are not addressing that question. We are not going to address it when we are talking about the maximum credible accident. And that is why there is something --

JUDGE FRYE: Well, you are arguing against considering that at all. I am just talking about deferral now, that's all.

MR. CORMIER: Yes.

JUDGE FRYE: I mean, I can see that you can make an argument that a particular sabotage scenario is outside the scope of this proceeding because of the provisions of the Regulations. Say, we are only supposed to consider scenarios of such-and-such a type.

We are not at that stage now. We are just talking about is this something we defer, or is this something we take up now?

MR. CORMIER: I think we defer it.

MR. HIRSCH: We don't understand that. As we understand it, the argument has been made very clearly by both Staff and Applicant that sabotage need not be worried about because the consequences of it would be the same as the consequences from the hypothesized earthquake or fuel-handling accident; and that because of the self-limiting features of the fuel, nothing serious could occur. And, therefore, there is no real need to worry about sabotage. I see that that deals with the inherent safeguards of the facility.

The argument that it is not likely that a Third World group would do it, or that the security is adequate to protect against it, or whatever, seems to me to go to that next stage. If it is determined that the University is wrong, that someone indeed could do something that would get stuff out, then the question has to become: well, do you have

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enough features to protect against that, to get the likelihood of it low enough? If that is in fact the way the Board feels the standard should be --

JUDGE FRYE: Okay, well what -- As I understand what you are saying, it's that what you want to be concerned about at this stage are the characteristics of the fuel. Given an earthquake, an airplane crash, sabotage, what have you, is there a sufficient amount of fission products contained in the fuel which could create a problem for the public health and safety?

MR. HIRSCH: One. And, two, the assertion by the Staff and Applicant that the fuel has certain chemical characteristics that tend to hold the fission products in.

So we just simply want to deal with those questions, the assertions by the Staff and Applicant that it is inherently safe against sabotage; no matter what initiating event, the consequences are acceptable.

And then it seems to me after that matter has been resolved by the Board, then we have to figure out if we have to go to dealing with the initiating event.

JUDGE FRYE: Okay.

Mr. Cormier, do you understand what he is saying now? We won't worry about -- His position is that we wouldn't worry about any specific initiating event; we would just be concerned at this stage about the fuel: Is the fuel

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1 such that regardless of what the cause might be, there is no
2 danger that it could create a problem for public health and
3 safety were it to be severely disrupted?
4 MR. CORMIER: Well, I think that takes us far afield
5 from deciding what the maximum credible accident is. The
6 problem is that sabotage --
7 JUDGE FRYE: Well, this is not the maximum credible
8 accident, obviously. The maximum credible accident, I think,
9 is probably something else.
10 MR. CORMIER: The problem with that is I don't know
11 what we are talking about. Sabotage is essentially an event
12 of unlimited potential. Earthquake is not. You can assess
13 the probabilities of this or that level of earthquake. An
14 airplane crash is not. You know what the capacity of an air-
15 plane is for causing damage. I don't know what we're talking
16 about.
17 JUDGE FRYE: Let me ask you another question. Is
18 it the University's position that there is no danger posed to
19 the public health and safety should there be an earthquake,
20 for example, which resulted in 750 guillotine breaks of the
21 fuel?
22 MR. CORMIER: No, not exactly. And I think we get
23 into the actual evidence that will be presented to answer the
24 question. Is it credible to talk about 750 guillotine cuts
25 of the reactor fuel? You have to have some idea whether that

29

1 is credible first, before we even talk about answering the
2 question whether it poses a risk, poses any risk to the pub-
3 lic. That is an element --
4 JUDGE FRYE: So what you are saying is that the
5 University would not eliminate the possibility that such an
6 event could cause a risk to the health and safety of the
7 public.
8 MR. CORMIER: We would have to address it. We would
9 certainly have to comment on that. And our comment will be
10 in the way of: let's talk about are we talking about
11 something credible or not.
12 JUDGE FRYE: Okay. You see, the point I am trying
13 to get at is that as I understand what Mr. Hirsch is saying,
14 it is that he has understood your position to be that because
15 of the characteristics of the fuel, even if that happened
16 there would be no untoward events.
17 MR. CORMIER: In the case of earthquake, correct.
18 JUDGE FRYE: Okay. Are we talking about -- I used
19 this term "750 guillotine breaks" because that is the term
20 that is in the Battelle study, one of the hazards that was
21 analyzed in that study.
22 MR. CORMIER: Yes. The University's position clear-
23 ly is that in the case of any credible earthquake scenario,
24 there is going to be no significant risk to the public.
25 Now, having said that, then we have to examine all

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1 credible earthquake scenarios.

2 JUDGE FRYE: Okay.

3 MR. CORMIER: That may or may not include a 750-

4 guillotine cut type event. Probably won't. But we would have

5 to satisfy you that it doesn't.

6 JUDGE LUEBKE: This contention doesn't have earth-

7 quake in it. It has got other things.

8 MR. CORMIER: I know. But I think that was raised

9 by way of example.

10 JUDGE FRYE: It was.

11 MR. CORMIER: But again getting back to the ques-

12 tion, I think that and the other types of accident scenarios

13 are different from the Subpart 1 concern, which really per-

14 haps ought to be be in Contention XX or some other place, I

15 don't know.

16 MR. HIRSCH: Judge Frye?

17 JUDGE FRYE: Yes.

18 MR. HIRSCH: In the motion for summary disposition

19 by Staff on Contention XIX, they made the following statement:

20 "In my opinion" -- this is from the Affiant for the Staff --

21 "no risk to health and safety from radiological releases would

22 occur from detonation of explosives, heavy aircraft crash, or

23 multiple-mode failure or operator error at the UCLA Research

24 Reactor."

25 Now, what we understood -- And maybe positions are

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1 shifting now; and maybe there is an admission that it is not
2 inherently safe, but that the likelihood is low. But what I
3 had understood the Staff and Applicant to be aruing is that
4 it doesn't matter; that explosives detonated, aircraft crash-
5 ing, maximum earthquake possible, doesn't matter; that nothing
6 much can get out.
7 And either that is their position, in which case we
8 would go to that first stage of hearing, or we should have a
9 statement that, "No, we are not saying that the reactor is
10 inherently safe."
11 JUDGE FRYE: In that respect.
12 MR. HIRSCH: Well, okay. But if it's in one
13 respect, then it is not inherently safe. But yes.
14 I basiecally need to know --
15 JUDGE FRYE: Well, the Board would like to know that
16 too.
17 MR. HIRSCH: -- whether there is a shift in position
18 now by the Staff and Applicant as to whether the facility is
19 inherently safe.
20 JUDGE FRYE: As I understand Mr. Cormier -- and I
21 will ask Ms. Woodhead too. But as I understand, Mr. Cormier,
22 you obviously aren't taking the position that regardless what
23 happened -- you know, if the sabateur comes in and throws TNT
24 in the middle of the thing and blows it all to pieces -- that
25 doesn't make any difference to the public health and safety.

32

1 You are not taking that position, as I understand it.

2 MR. CORMIER: I would assume that if a sabateur

3 comes in and throws TNT, that has consequences to the public

4 wherever it occurs. And that's the problem.

5 JUDGE FRYE: I am just talking about the releases

6 from the fuel. That's all.

7 MR. CORMIER: Well, I mean, just throws it at the

8 reactor? Maybe. How much TNT are we talking about? That's

9 the problem.

10 JUDGE FRYE: What I am saying is that if he is suc-

11 cessful in destroying the core. Let's assume he is success-

12 ful in destroying the core, all right? Is it the position of

13 the University that there is no danger posed to the health and

14 safety of the public as a result?

15 MR. CORMIER: I don't know what our position would

16 be because we haven't analyzed that scenario.

17 JUDGE FRYE: I see.

18 Ms. Woodhead?

19 MS. WOODHEAD: The Staff has not changed its posi-

20 tion at all. It stands firm on the concluding paragraph

21 there.

22 I might point out something that I see happening in

23 the disputing affidavits by CBG to the Staff's three scienti-

24 fic studies. And that is a basic dispute about nuclear phy-

25 sics and nuclear engineering, which is not contained in the

33

three studies.

So we intended to present testimony that addressed the disputes about basic physics, such as Wigner in fact, combustibility of the specific amount of graphite in this specific reactor, such as that. We intend to go to hearing with the Battelle study, the Brookhaven study, and the Los Alamos report, which addressed -- according to the directions to the laboratory -- five credible accidents which the Staff proposed to these laboratories. And our testimony will expand on the math and physics underlying these studies, which are not contained in the reports admittedly. That seems to be the dispute by CBG's affiants, is the basic physics and mathematics from which these conclusions were derived.

And there will be no difference in our testimony's conclusions from what the summary disposition and affidavits say right now. It will simply be a matter of getting down to a more elementary level and explaining the physics and the mathematical equations from which they derived their conclusions in the studies. So there is no change in our viewpoint at all. We think an earthquake disaster would be the approximate equivalent of a sabotage disaster.

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1 JUDGE FRYE: Well, I am sure -- I am not sure
2 that I fully understand how that applies to this. The
3 question that Mr. Hirsch has posed really goes to the
4 question: Do we need to consider at this stage of the pro-
5 ceeding the probability of sabotage or aircraft crash and
6 what the consequences of that kind of act would be, or are we
7 simply talking about the proposition, regardless of those
8 events, assuming those events could take place, regardless
9 what the probability might be, that no danger to the public
10 health and safety would ensure? The point being that if
11 we are talking about it as he has put it, we would not get
12 into probabilities for sabotage, or earthquaktes, or, in the
13 case of earthquakes, the level of the earthquake, the inten-
14 sity of the earthquake. We would not need to get into the
15 probability of air crashes and what might happen in the event
16 a heavy aircraft did crash into the building.
17 On the other hand, if your position -- Mr.
18 Cormier's position -- is not as he has understood it anyway,
19 that it is theoretically possible, anyway, that such an event
20 could lead to a release of fission products that would have
21 adverse consequences for the public health and safety, then
22 we do need, obviously, to think of the probabilities of these
23 sorts of events.
24 MS. WOODHEAD: I always assumed when I use the
25 term "maximum credible accident," that we are talking about

1 something that is remotely possible. Hopefully, we don't
2 think in terms of this as something that might well happen.
3 We are talking about the very worst case accident, whether it
4 is power reactor or research reactor. We are trying to ex-
5 tend our analyses to something that is the very worst thing
6 that we can reasonably postulate that could happen. We can
7 always think of horror stories that are even worse. But this
8 would imply that it was remote and not something that we think
9 would reasonably happen in the course of the lifetime of a
10 reactor. It is something that we hope is the worst case that
11 will never happen. But it it does, we need to know what the
12 consequences are.
13 JUDGE FRYE: Okay, I think, as I read you, we do
14 need to get into probabilities then on this question, on this
15 contention; that we are then talking about the threat posed
16 by sabotage and the threat posed by air crashes.
17 JUDGE LUEBKE: As I read the contention, it says
18 there is something missing from the safety analysis report; it
19 is incomplete, and it is --
20 MR. HIRSCH: It is inadequate.
21 JUDGE LUEBKE: It is inadequate, yes.
22 MR. HIRSCH: Right.
23 JUDGE LUEBKE: So I think it is the burden upon the
24 Staff and Applicant to show otherwise in response to the con-
25 tention.

1 Now, how they do it, how they choose to do it, that is their
2 prerogative.
3 JUDGE FRYE: In other words, they need to show
4 that there is no necessity to provide an analysis of the
5 accident scenarios that were listed here. And I think
6 that answers your question. And insofar as this contention
7 is concerned, we are not talking about the situation as
8 you originally postulated it. And even if something like this
9 could and did happen, there would be no adverse consequences.
10 MR. HIRSCH: We are not, you say?
11 JUDGE FRYE: Yes, "not."
12 MR. HIRSCH: Let me -- We would have a lot of
13 difficulty with that. I don't know what would happen with
14 the other parties. But the moment it starts dealing with
15 probabilities, then we have to look at the operating history
16 of the facility, the number of unintentional scrams, the
17 violations that occurred --
18 JUDGE FRYE: That brings up the next point, and I
19 think I want to defer it for now. But maybe this is a con-
20 tention that needs to be dealt with separately from the other
21 contentions that we have put out for hearing.
22 MR. HIRSCH: Our response would be that we think it
23 is the central one, actually, for hearing. I think that the
24 Board's Order was --
25 I don't know how we got so far astray, but it

1 seemed to me quite simple and quite correct, that research
2 reactors were designed to be inherently safe. That was
3 the premise behind them. But you can --
4 JUDGE FRYE: Mmm-hmm. (Affirmative response.)
5 MR. HIRSCH: -- put them on a college campus,
6 let students operate them, not have a containment structure,
7 because there is nothing that can happen to it according
8 to the laws of physics. That has been the position of
9 the Staff and the Applicant. And it seems to me that that
10 is what the Board said we would go to hearing on. And then
11 if we find out it is not inherently safe, that the laws
12 of physics do not automatically protect that reactor from
13 accident, then we would argue that that reactor should
14 not be re-licensed, because we think that inherent safety
15 is mandatory for a research reactor in such a location.
16 If the Board decided that no, there can be compen-
17 sated features to compensate for the lack of inherent safety,
18 then the University and the Staff would have to show that
19 they have sufficient engineered safety features and suf-
20 ficient administrative controls to compensate for lack
21 of inherent safety.
22 And I think that was -- that is how we read the
23 Board's Order. and it seems to us to address the central
24 question and put the other parties in their motions for
25 summary disposition and in their arguments.

5

1 If we are going to deal with the issue of whether
2 such an accident -- as I say, whether the likelihood is
3 high because there are regulations that would prohibit
4 from doing such a stupid thing or because the tech specs
5 say you have to monitor at such a frequency, or because
6 the frequency of earthquakes in such a fault are such-
7 and-such, it seems although I thought most of that had
8 been conceded -- somehow the central issue that was before
9 us was whether like most research reactors are supposed
10 to be, this one is inherently safe.
11 And I think that makes sense to go to hearing
12 on, first, and that XIX is the central issue in it. If
13 it turns out that it is not inherently safe, then we may
14 have to examine whether the probability is so small as
15 to be acceptable in the midst of Westwood Village. But --
16 and if it turns out to be inherently safe, we do not have
17 to deal with the probability.
18 JUDGE FRYE: Let us think about this one for
19 a little bit and come back -- and you all think about it
20 as well. We will pick it up later in the pre-hearing con-
21 ference again.
22 Let me say also that I think, Mr. Hirsch, your
23 characterization of what we were trying to get out is correct
24 too.
25 So the next one we had listed was number VIII,

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1 radiation exposure during the maximum credible accident.

2 Anything in this that should be deferred for

3 the second part of the proceeding?

4 Mr. Hirsch?

5 MR. HIRSCH: No.

6 JUDGE FRYE: Your position, Mr. Cormier?

7 MR. CORMIER: Our position? It ought to be dis-

8 missed and eliminated now.

9 JUDGE FRYE: Well --

10 (Laughter.)

11 MR. CORMIER: I mean --

12 JUDGE FRYE: We understand that, but we are past

13 that stage at this point. But you do not see anything

14 to defer?

15 MR. CORMIER: No.

16 JUDGE FRYE: Okay.

17 Ms. Woodhead?

18 MS. WOODHEAD: Contention VIII deals with the

19 old hazards analysis, which is no longer a part of the

20 Application. And that whole contention is irrelevant to

21 the Application as it stands now.

22 In our summary disposition motion, we explained

23 this briefly, that this hazards analysis that was written

24 by the vendor or someone for all the Argonauts back in

25 the 60s is in many parts inexplicable, and there is

1 no one around anymore who can talk about it. And the studies
2 performed by the three laboratories for the Staff are gen-
3 eric safety analyses, and that is what we talked about
4 in our summary disposition, is that --
5 JUDGE FRYE: Well, as I read this contention,
6 it simply relies upon the old safety analysis as
7 support for its basic contention that radiation exposure
8 to the public in the maximum credible accident is unacceptable
9 anyway.
10 MR. HIRSCH: That is correct. That is simply basis
11 for the assertion about consequences, one of many bases.
12 MS. WOODHEAD: Well, that is true. It does
13 pose the issue of maximum credible accident, but it focuses
14 specifically on the old 60 hazards analysis.
15 JUDGE FRYE: As a -- as a --
16 MS. WOODHEAD: Of --
17 JUDGE FRYE: -- as a support for that position.
18 MS. WOODHEAD: That is right, but that is what
19 makes it unlitigable, and that is a good word, because
20 we have not -- we have no idea how the 1800-rem figure
21 was calculated. We cannot find the author. We cannot
22 find the basis for it in the analysis. It is no longer
23 part of the Application.
24 If we are going to talk about the present hazards
25 analysis in the Application, that is well and good. And

if we can let that be understood now: that Contention VIII deals with the present safety analysis, maximum credible accident, with which the present Application deals --

JUDGE FRYE: Mmm-hmm. (Affirmative response.)

MS. WOODHEAD: -- then we have no problem, but we cannot litigation Contention VIII as it is written.

JUDGE LUEBKE: Well, if you will put on your direct case, you will all explain that to us so that we could understand it.

JUDGE FRYE: I was going to say, it really goes to the question of evidence really, the weight to be given evidence. If this -- if there is nobody around to testify as to the 1980 safety analysis report, the 1960 hazards analysis report, why, obviously, it is going to affect the weight to which it is given -- to which it is entitled.

But it does deal -- or the overall contention does deal with the current situation.

JUDGE LUEBKE: Don't I remember remarks being made about copying from the 1960 hazards report?

MS. WOODHEAD: Yes, Judge Luebke, the 1980 application duplicated the 1960 hazards analysis. Later it was withdrawn.

JUDGE LUEBKE: So how can you say no, that it is not at all involved?

MS. WOODHEAD: It was withdrawn and replaced

1 by a new hazards analysis.

2 Judge Frye, if I may point out, that each sub-

3 part of Contention VIII deals with the specific numbers

4 of the 1960 hazards analysis.

5 JUDGE FRYE: Mmm-hmm. (Affirmative response.)

6 MS. WOODHEAD: We simply cannot deal with that.

7 If we can --

8 JUDGE FRYE: Well --

9 MS. WOODHEAD: -- eliminate VIII as written

10 and simply come to some understanding that it is raising

11 an issue of a maximum credible accident, that is just

12 fine. But VIII as written has nothing to do with this

13 proceeding.

14 MR. CORMIER: Well, I think it is even simpler

15 than that. Although there is nobody around to tell us

16 what that 1960 hazard analysis was intended to say, the

17 report itself says the postulate upon which that

18 1800-Rem dose appeared in the table was assumed. It is

19 an assumed condition. They assumed local melting of the

20 fuel plates. I meam "Hence, in the analysis certain basic

21 assumptions are required as to the circumstances surrounding

22 the release of the fission products as to atmospheric

23 conditions and as to the tightness of the building at

24 the time of release. The results obtained here are based

25 on assumptions which except for the arbitrary one that

10

1 a release has occurred are considered reasonable."

2 Well, that arbitrary one is the driving assumption.

3 The problem faced by the analyst -- he could not think

4 of a credible scenario that would cause fission product. So he

5 simply assumed the condition. The report speaks very

6 well of that. I do not know how anybody can use it --

7 JUDGE FRYE: Well --

8 MR. CORMIER: -- to --

9 JUDGE FRYE: -- that -- this is an evidentiary

10 question.

11 MR. CORMIER: Right. Well, it -- we submitted

12 it on motion, and I think that the Board found that most

13 of those matters were not in dispute, which leads me to

14 believe that probably we ought to

15 JUDGE FRYE: Well, insofar as the facts stated

16 or repeated what was in the analysis, if my memory serves

17 me correctly. In other words, the analysis said thus and

18 so, and to the extent that the facts simply repeated that --

19 said the analysis said, quote, that's not really in dispute.

20 That is what it said.

21 Now, what is in dispute is whether or not the

22 maximum credible accident would have unacceptably high

23 consequences now, regard- --

24 MR. CORMIER: Mmm-hmm. (Affirmative response.)

25 JUDGE FRYE: And that is what we are dealing

1 with. What Mr. Hirsch and CBG had put down here is the
2 basis for the overall proposition that the maximum credible
3 accident would have unacceptably high consequences. Whether
4 or not that support that they have cited, the '80 safety
5 analysis and the '60 hazards analysis in fact supports
6 their overall proposition, is a question of evidence.
7 MR. CORMIER: Mmm-hmm. (Affirmative response.)
8 It is just the University's position that we
9 do not intend to spend a lot of time talking about the
10 '60 analysis.
11 JUDGE FRYE: That is -- you know, you are entitled
12 to present your case in whichever way you feel is best.
13 Okay, nothing to defer, then, on VIII.
14 The next one was XV, siting/population considera-
15 tions. This asserts that the operating license for the
16 facility should not be renewed because of the adverse
17 consequences which flow from its location and siting are
18 too great. The following circumstances have exacerbated the
19 adverse consequences of a facility accident and of normal
20 operation.
21 Now, it would be our thought to remove the "and
22 of normal operation."
23 MR. HIRSCH: At this stage?
24 JUDGE FRYE: At this stage. And defer that
25 until the later stage.

12

1 I take it no one has any difficulty with that.
2 Do we need to look at the specific items, 1, 2 and 3?
3 (No response.)
4 JUDGE FRYE: No? Good.
5 We defer the "and of normal operation" portion.
6 And then we go to number XII, inadequate safety
7 features. And this, I think, gets into the containment
8 and monitoring systems, Boron-injection systems.
9 Anything here that should be defered?
10 MR. HIRSCH: This is the one that I think we
11 need clarification regarding. As a term of art, "inherent
12 safety" is different from "engineered safety." This con-
13 tention deals with engineered safety. It is obviously
14 impacted by a decision as to whether it is inherently
15 safe. But the features are ones which are engineered
16 features which are to mitigate consequences, or reduce
17 the likelihood of consequences, if the facility is not,
18 by the laws of nature, safe.
19 The two possible exceptions would be sub-part 7,
20 which deals with the problems of what happens to the graphite.
21 Possibly, I think that one does have to be addressed because
22 it is the Wigner question --
23 JUDGE FRYE: Mmm-hmm. (Affirmative response.)
24 MR. HIRSCH: -- in part. And perhaps the issue
25 of containment structures, simply because the argument

about containment structures, that it is not needed -- I am not sure -- I mean, in a number of these the argument is actually that they -- is the same.

So either 1 and 7 or just 7.

JUDGE FRYE: You would take out -- defer the others?

MR. HIRSCH: To take out the others, it would seem to me we would have to deal with whether any fuel failure could be a problem, whether the inherent safety is such that control-blade inadequacies do not matter. But the issue of the actual control-valve system, the lodging (ph.) system failure in 1970-whatever -- I am not sure that this is the stage.

JUDGE FRYE: Mr. Cormier?

MR. CORMIER: We have no problem in treating this in first issue.

JUDGE FRYE: The whole thing?

MR. CORMIER: The whole thing.

MS. WOODHEAD: Judge Frye, I would propose that this be deferred.

JUDGE FRYE: The whole thing?

MS. WOODHEAD: The whole contention because they are all additions except for a couple of sub-parts which would have to be addressed in the excess reactivity or the accident contentions.

They all deal with modifications, changes to the reactor to provide greater safety if necessary. It seems to me this would be a secondary matter.

JUDGE FRYE: Does Mr. Hirsch --

MS. WOODHEAD: Everything in here --

JUDGE FRYE: As Mr. Hirsch characterized it, it deals with engineered safety features --

MS. WOODHEAD: Correct.

JUDGE FRYE: -- which would not be necessary if in fact the machine is inherently self-limiting.

MS. WOODHEAD: That is the way I understand it. And the two he pointed out in particular, I believe, would have to be addressed in the accident considerations.

JUDGE PARIS: So you are agreeing with Mr. Hirsch?

MS. WOODHEAD: Right.

JUDGE LUEBKE: Well, I read item 2 -- item 1 is not as is. That is an addition, containment.

MS. WOODHEAD: Mmm-hmm. (Affirmative response.)

JUDGE LUEBKE: We do not have containment.

MR. BAY: Well, as it is phrased, essentially, when looking at what the release to outside consequences would be, it really states a fact that there is a housing there rather than a containment structure. So in that sense, that would be part of the analysis of consequences

1 analyzed here.

2 JUDGE FRYE: It being if the machine is inherently

3 self-limiting, there is no need for containment.

4 MR. BAY: Correct.

5 JUDGE FRYE: The containment being an engineered

6 safety system.

7 JUDGE PARIS: So number 1 could be deferred.

8 JUDGE FRYE: I would think number 1 could be

9 deferred.

10 Would you not, Mr. Hirsch?

11 MR. HIRSCH: It would seem to me the entire

12 contention could, knowing that --

13 JUDGE FRYE: With the exception of --

14 MR. HIRSCH: -- well, knowing that we are going

15 to have to deal to graphite under accident analysis anyway.

16 JUDGE FRYE: I see.

17 Do you have any more problem there?

18 MR. CORMIER: No problem there.

19 JUDGE FRYE: All right. Let us defer it, with

20 the understanding that the graphite comes in on a different

21 contention, that we are taking up.

22 Okay, then we come to number XIV,generic problems.

23 It is a fairly short one. It simply says that generic

24 problems have not been adequately analyzed.

25 Mr. Hirsch?

1 MR. HIRSCH: To the extent that that contention
2 deals with failure to adequately analyze generic problems
3 that are inherent in the Argonaut design, it seems to
4 me that would be the first stage. Any problems that relate
5 to engineered features, we think, would be deferred.
6 JUDGE FRYE: Would be deferred?
7 Mr. Cormier?
8 MR. CORMIER: We have no problem with that.
9 JUDGE FRYE: Ms. Woodhead?
10 MS. WOODHEAD: That is agreeable.
11 JUDGE FRYE: Okay, so to the extent that XIV
12 deals with inherent safety features, in other words, is
13 it self-limiting, it is taken up, but engineered matters
14 are deferred.
15 Okay, that brings us then onto XIII, which, if
16 I recall correctly, you said you felt might pose some
17 problems.
18 MR. HIRSCH: I think we can solve them somewhat
19 if we are going to follow the same division, that to the
20 extent that they are inherent, that the reactor is inherently
21 safe, there is no need, then, to switch to a different
22 kind of fuel. That would be a change that one would need
23 to do in order to compensate for lack of inherent safety
24 at present. It is like whether or not one has to have
25 a containment structure, or whether or not one needs

17

1 boron injection systems. If there is a determination
2 that the reactor is not inherently protected against power
3 excursions, then some remedy must be found, if the facility
4 is to be licensed. So in our view that issue would be
5 the equivalent of an engineered feature, a change, if
6 there is a determination that the fuel that the University
7 is proposing to use is not inherently safe.
8 The practical difficulty that we have is that
9 our witnesses for that particular contention are -- it
10 would be difficult to have them here twice, to cut that
11 contention into two parts. Part of it deals with the
12 proliferation risk of the fuel as opposed to the safety
13 considerations of converting. We simply would not be
14 able to get -- I would say, doubt we would be able to
15 get -- some of our witnesses here twice.
16 That is the practical consideration. It seems
17 like we could address the issue somewhat through
18 Dr. Kaku and Mr. Norton's testimony regarding the
19 Doppler effect.
20 I notice that the Board did not consider it
21 included in its order of discussion of the inherent safety
22 features of trigger LEU fuel. I do not know if that was by
23 choice or not.
24 Dr. Kaku and Mr. Norton could address
25 in the first phase the issue of the Doppler effect for

18

1 low-energy fuel, but the trigger matter and availability
2 of fuel, it would seem to us, fits better with that proli-
3 feration issue.
4 JUDGE FRYE: Does that come under Contention
5 XIII, as well?
6 MR. HIRSCH: Oh, yes. Our major concern about
7 XIII is that it is highly enriched material that poses
8 a weapons problem. And that is the reason we --
9 JUDGE FRYE: No, I am saying, you mentioned
10 the inherent safety features of trigger fuel.
11 MR. HIRSCH: Mmm-hmm. (Affirmative response.)
12 JUDGE FRYE: And by that, I assume that you
13 meant that --
14 MR. HIRSCH: Low-energy fuel.
15 JUDGE FRYE: Right, the fact that the moderator
16 is included in the fuel element itself provides a certain
17 safety --
18 MR. HIRSCH: Right.
19 JUDGE FRYE: -- margin, not the -- I was not
20 thinking of proliferation. But that part comes under
21 XIII as well?
22 MR. HIRSCH: Yes, in other words, what we have
23 argued in XIII is that the enrichment is excessive and
24 that there are alternatives that would be good for several
25 reasons. The most important to us is the proliferation

1 reason. But as icing on the cake, it would also make
2 the reactor safer.
3 I might add also that XIII does have one additional
4 element in it which is the issue of criticality accidents
5 and whether the precautions taken at the facility and
6 described in the Application are sufficient to meet the
7 requirements to protect against criticality accidents.
8 JUDGE FRYE: Okay, well, I was focusing -- we
9 were focusing on the second sentence --
10 MR. HIRSCH: Mmm-hmm. (Affirmative response.)
11 JUDGE FRYE: -- of XIII. It says,
12 "Furthermore, the enrichment level
13 requested and the quantity requested
14 of SMN are excessive and thus pose an
15 unnecessary threat to public health
16 and safety."
17 My view or my recollection was that the question of the
18 inherent safety feature of trigger fuel by virtue of the
19 fact that it contains the moderator within the fuel element
20 itself fell under a different contention.
21 MR. HIRSCH: Contention V on excess reactivity,
22 I would assume.
23 JUDGE FRYE: I do not recall specifically. But
24 I do not recall that we reviewed this particular contention
25 as --

20

MR. HIRSCH: Well --

JUDGE FRYE: -- raising the --

MR. HIRSCH: -- I see.

JUDGE FRYE: -- that point.

MR. HIRSCH: It does not matter where it comes up. Let me just say that we have one problem, which is that the Applicant is not proposing to use LEU fuel. The proposal by the Applicant at present says HEU, the flat-plate fuel that we have in front of us. And it -- although we have been trying to show that yes, there are proliferation dangers, yes, there are safety risks involved with it, we have also been trying to show that there are alternatives, that it is an unnecessary risk.

JUDGE FRYE: So again, what you are really saying now is that this is something that could wait the determination of whether the present fuel, the plate-type fuel poses any --

MR. HIRSCH: If the Board determines that the present kind of fuel was inherently safe, then the issue of converting to LEU for safety reasons would seem to be moot.

JUDGE FRYE: Yes.

MR. HIRSCH: The proliferation issue, which we think is very important, would remain, in our opinion.

JUDGE FRYE: Mmm-hmm. (Affirmative response.)

21

I almost get the feeling that we might be getting into a situation where we have a three-stage thing, and we start out with a two-stage thing: inherent safety and then, basically, normal operations and other administrative matters.

Now we are getting into an inherent-safety determation where we will first consider the machine the way it is, and depending on the outcome there, pick up other aspects of it, such as the enrichment level of the fuel.

MR. HIRSCH: That is what we were sensing, but we were reading probably more into your order than you had initially intended.

JUDGE FRYE: Mmm-hmm. (Affirmative response.)

MR. HIRSCH: We could not quite see, for example, where normal operations fit because it seems to be a question of inherent safety, although it is inherent safety in terms of normal emissions. But it seems that if one divided it up into the fashion that we are talking about today, it would be three stages: inherent safety, and then issues like normal emissions, and some questions like class of license and proliferation risks. And then the third stage, which may or may not be necessary, which would be the compensatory features: conditions that you might impose if you felt it was okay to license the facility, or the Board might determine that the lack of inherent

safety is sufficient that nothing can compensate and there is no need also for a third stage.

JUDGE FRYE: Mmm-hmm. (Affirmative response.)

MR. HIRSCH: But it did -- we understand the third stage. which is things that compensate for lack of inherent safety, would be dependent upon a ruling that there is not inherent safety.

JUDGE FRYE: Your position is that this fuel is not inherently safe, as I understand it, and that the use of trigger fuel would add an element of safety that is presently lacking.

MR. HIRSCH: The use of LEU flat-plate would add an element of safety; the use of trigger LEU would add even more.

JUDGE FRYE: Okay. So if we were to determine that this particular flat-plate highly-enriched fuel is safe, there would be no need to go to those next two steps.

Now, what I am concerned about, you see, is the witnesses who are going to address the question of whether the plate-type highly-enriched fuel is safe are probably the same witnesses who would address the advantages of having low-enriched plate-type or low-enriched trigger fuel.

MR. HIRSCH: Not in our case.

JUDGE FRYE: Not in your case.

23

1 MR. HIRSCH: That may be true of the opposing
2 parties.
3 JUDGE FRYE: Mr. Cormier?
4 MR. CORMIER: Well, Judge Frye, our Application
5 is an application that includes as a feature HEU fuel.
6 It is our understanding that alternatives are not available,
7 and the way we read the Board's orders, we thought the
8 Board would inquire into that first before we get into
9 any other discussions pertaining to the fuel.
10 I might add that I do not know what it means
11 to talk about "inherently-safe fuel." I do not know what
12 it means to talk about "inherently-safe substances." That
13 is why I do not like that expression.
14 JUDGE FRYE: Mmm-hmm. (Affirmative response.)
15 MR. CORMIER: Is salt inherently safe? Doctors
16 say it is not. I mean --
17 JUDGE FRYE: Yes.
18 MR. CORMIER: -- it is an unfortunate expression,
19 and I wish I could ban it, and I assume that --
20 JUDGE FRYE: Well, we are using it -- we are
21 using it as a shorthand phrase here, and that is all,
22 in the context of our earlier discussions.
23 We are going to have to break for a telephone
24 call. So why do we not break at this point and pick up
25 after lunch at quarter of two.

I am sorry to have to break off in the middle of this discussion. One of us does have a telephone call that has to be placed at noon.

(Whereupon, at 12:00 noon, proceedings in the above-entitled matter wer recessed for lunch, to reconvene at 1:45 p.m. that same day.)

1 A F T E R N O O N S E S S I O N

2 (1:50 p.m.)

3 JUDGE FRYE: Could we go back on the record,

4 please?

5 I think when we left off, Mr. Hirsch, you had

6 just finished talking about Contention XIII, and I was

7 about to go to Mr. Cormier. Could you just very briefly

8 refresh us on your position?

9 MR. HIRSCH: Our position is that Contention XIII

10 deals with several issues, and we would find it somewhat

11 difficult if we had to split it, unless we could find

12 a way to split it without having to require the same

13 witness to appear twice on that issue.

14 In addition, we view part of Contention XIII

15 which deals with replacement fuel for the facility as

16 a matter not currently before the Board, and which would

17 only be necessary from a safety standpoint if there was

18 a determination that the current fuel is not inherently

19 safe. We do think that the central issue, however, with

20 Contention XIII is the proliferation risk is involved with time

21 with uranium, which is a matter separate from that of

22 the safety.

23 JUDGE FRYE: Mr. Cormier?

24 MR. CORMIER: I am not sure I understand what

25 Mr. Hirsch is proposing, but I guess in response I have

1 a question for the Board: Is it being proposed that the
2 Board consider making a determination that high HEU is
3 inherently unsafe in research reactors or Argonaut reactors
4 and therefore we make a decision that that is, you know,
5 not permissible fuel for the UCLA reactor? I mean,
6 I am asking a question about jurisdiction.
7 JUDGE FRYE: Well, his contention says that
8 the enrichment level requested and the quantity are excessive
9 and pose no necessary threat.
10 MR. CORMIER: It sounds like a generic issue
11 to us. Presently, HEU is the only thing that is licensed
12 for our type reactor by the NRC. The NRC has not licensed
13 any other fuel, has not asked us to change to any other
14 fuel, and our Application is only for HEU. So --
15 JUDGE FRYE: So your position is that if you
16 cannot have HEU -- You only want to go with this if you
17 can have HEU, I take it?
18 MR. CORMIER: That is our Application now, yes.
19 And the -- as far as we know, the Commission is not consider-
20 ing rule-making that would have us change to LEU. If
21 the Commission did as part of its regulations or licensing
22 of fuel, then of course, we would have to reassess the
23 situation. It seems to raise a generic issue.
24 JUDGE FRYE: Fuel is not licensed, per se, is
25 it?

1 MR. CORMIER: Yes, it is.

2 JUDGE FRYE: Is it? I see.

3 MR. HIRSCH: Excuse me. The manufacture of
4 fuel -- for fuel-fabrication facilities -- that facility
5 would have to receive a license, but the fuel for this
6 facility, you have a request for license of a certain
7 kind. And that is within this Board's jurisdiction as
8 to whether to grant that or not or to pose conditions.

9 In addition, the Commission has established
10 a policy, and this Board is to carry out that policy
11 to the best it can, which is to reduce the amount of HEU
12 in use at research reactors --

13 JUDGE FRYE: Mmm-hmm. (Affirmative response.)

14 MR. HIRSCH: -- wherever possible. So that is
15 the issue that is before the Board: Is it possible? Should
16 it be reduced? Can it be reduced? Should the Application
17 for HEU be denied? If the University is unwilling to
18 use LEU, what happens, if the HEU Application is denied?

19 That is clearly a matter before this Board, and it is
20 perhaps the most important issue, one of the most important
21 issues, at least.

22 JUDGE FRYE: If I understand -- Ms. Woodhead,
23 let me come to you.

24 Does the Commission specifically license HEU
25 or LEU of a specific type for specific research reactors?

1 It is not a separate licence, is it? It is part of
2 a license application for the reactor in question, I thought,
3 or am I in error?
4 MS. WOODHEAD: Well, the Part 30, 40 and 70
5 licenses are for the fuel and by-product materials.
6 JUDGE FRYE. But it's a specific case-by-case?
7 MS. WOODHEAD: And it must be designated in
8 any application as to what kind of fuel --
9 JUDGE FRYE: Right.
10 MS. WOODHEAD: -- they are going to use and --
11 JUDGE FRYE: But if -- if for instance, the
12 University had come in and said, "We want to go to low-
13 enriched fuel," the Staff would have processed that, I would
14 take it?
15 MS. WOODHEAD: Correct.
16 JUDGE FRYE: And reach a conclusion as to whether
17 low-enriched fuel were appropriate. There is not a specific
18 license for the fuel itself, is there?
19 MS. WOODHEAD: It is contained within the Part
20 50 operating license.
21 I am sorry. Go ahead. I was going to make
22 another comment, but if you are still talking --
23 JUDGE FRYE: The point I was just trying to
24 make was that it is a reactor-specific license, it is
25 not a general license. You do not look at fuel for Argonauts

1 and say, "We will license highly-enriched fuel for Argonauts"?
2 MS. WOODHEAD: On, no, there is no general license --
3 JUDGE FRYE: Okay.
4 MS. WOODHEAD: -- for fuel. Correct.
5 JUDGE FRYE: Mmm-hmm. (Affirmative response.)
6 So that comes back to you, Mr. Cormier. The
7 point that I was making to you is -- and I guess this
8 goes as a more general point than just as pertaining to
9 the fuel -- we would like to get a record compiled here
10 in this phase that would permit us to make a decision
11 based on what the evidence shows. In other words, we
12 would not want to be in a position where if we found that
13 say, Mr. Hirsch, was correct, that 2.3 per cent excess
14 reactivity is too much, that we would just have to say,
15 "That's too much," and stop there. We would like to be
16 in a position to say that one per cent is appropriate,
17 or whatever it might be. You know, we would like to have
18 a record that would support that kind of a decision.
19 I think the same thing is true with regard to
20 the fuel: that if it should turn out that highly-enriched
21 uranium presented a problem, we would not want to just have to
22 say, "That's a problem" and stop there. We would want
23 to be able to say that the problem could be overcome by
24 the use of a certain other type of fuel, low-enriched fuel.
25 MR. CORMIER: As a practical matter, the University

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is not in a position to convert HEU to LEU unless and until the Department of Energy and the Nuclear Regulatory Commission come up with a program to convert fuels at research reactors such as us. One reason is the cost of conversion. And therefore, our Application is for HEU, which raises the second question I still want to get at: What would be the determination or conclusion the Board would consider making? That HEU at Argonaut reactors is unsafe?

JUDGE FRYE: Well, I think that is clearly within this contention.

MR. CORMIER: And that would have applicability to all other Argonaut reactors?

JUDGE FRYE: No, no, no.

JUDGE PARIS: No, HEU -- we would have to decide that HEU is unsafe for the Argonaut reactor at U.C.L.A.

MR. CORMIER: Then, there is something specific about --

JUDGE FRYE: It could be that a determination at U.C.L.A. would have the same effect at another Argonaut.

MR. CORMIER: Yes.

JUDGE FRYE: But all we can deal with is U.C.L.A.

MR. CORMIER: Then we ought to get that determination right away, because as it stands now, the University is applying for HEU only, could not absorb the cost of

1 conversion and tell the DOE or the NRC or both in conjunction
2 come up with a program to convert. It is our understanding
3 that they do not intend to do that, not for reactors like
4 us. That is our information.
5 JUDGE LUEBKE: What do you mean by "program?"
6 I saw a piece of paper the other day that suggests they
7 were doing research and development, and by the end of
8 the year, it is going to exist.
9 MR. CORMIER: There is a series of stages, and
10 I do not know that I am best qualified to speak to that.
11 But as I understand it, both the Department of Energy
12 has to test and prove a few of them. You have to determine
13 what increased density of the fuel would be appropriate
14 for the reactor that will not cause you presumably to
15 have to change the geometry of the reactor. That is recon-
16 struct it to make it larger. Then there would no doubt
17 have to be certain licensing studies of what safety implica-
18 tions the change to the different fuel would have, what
19 characteristics of the reactor are going to change. It
20 is an entirely different safety analysis, I presume.
21 And all of that would be done by NRC, DOE or
22 both. And then perhaps they would come out with some poli-
23 cies saying that all research reactors must change or convert
24 to LEU by such-and-such a date.
25 My understanding is what is being considered

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1 by the NRC currently is any new applications by licensees
2 for research reactor licensees or somebody else, the NRC
3 may be considering now not licensing HEU for new facilities.
4 My understanding is that they do not intend to impose
5 that burden of conversion on existing licensees. They
6 will let the fuel run out, when it runs out. In other
7 words, they will not fabricate any more fuel for us, make
8 it available for us. That seems to be a prudent policy.
9 JUDGE FRYE: Department of Energy being your
10 source of fuel?
11 MR. CORMIER: Yes. We do not own our fuel.
12 It is Department of Energy's fuel. They license us --
13 or they essentially give it to us under a grant program
14 to use, and that would be the case with any alternative
15 fuel too. In addition, there is the quarter-million-dollar
16 on up, probably half-a-million-dollar conversion cost,
17 when you include the studies that must be done and everything
18 else.
19 Now, if the Board is considering making a ruling
20 that no, Argonaut reactors, or this Argonaut reactor for
21 some specific characteristic of our reactor that is different
22 than other Argonaut reactors, indicates that you cannot
23 safely use this fuel, then we ought to get that determina-
24 tion --
25 JUDGE FRYE: Well, I agree with you, and that

9

1 is, I would think, part and parcel of this -- this whole
2 phase one. We want to get all of that sort of thing out
3 of the way first.
4 MR. CORMIER: It appears to the University that that
5 raises really policy questions for the NRC, and maybe
6 the Board has a mechanism for inquiring what is the policy
7 with regard to conversions to HEU.
8 JUDGE FRYE: Well, why don't you do this, if
9 you are so inclined to do it. It is entirely up to you,
10 obviously. If you feel that there is a policy question
11 involved here that ought to go to the Commission, why
12 do you not make a motion to us to certify it and give
13 us a detailed briefing on that motion as to what the policy
14 implications are and why it is appropriate that the matter
15 should be certified to the Commission for decision. And
16 then the other parties can respond to that.
17 But I think in the interim that we will include
18 it within the phase-one portion of this proceeding, and
19 depending on the results of the motion, if we should certify
20 it, then we might -- might or might not want to go ahead
21 with evidence on the question. It might even be that
22 we would want evidence on the question and then certify
23 it because then there would be something that the Commission
24 would have a little bit more to look at.
25 MR. CORMIER: Yes. Well, then, certainly, in

10

1 considering the first-phase questions having to do with
2 the maximum credible accident, you have to get into the
3 fuel, certain characteristics of the fuel, and that would
4 properly be part of our presentation at that first phase.
5 We understand that part of it.
6 And certainly, to the extent that there are
7 safety questions raised by that fuel, wholly aside from
8 whether there are alternatives or anything else, those
9 ought to be addressed, and we understand that. That is
10 not a problem.
11 But the question of alternatives seems to be
12 a question that we do not need to reach, certainly at
13 this stage, and as far as the University is concerned,
14 we ought never to be reaching, because if the determination
15 is made, we do not have the resources to spend a half
16 a million dollars to convert fuel, and that is --
17 JUDGE FRYE: It is prohibitively --
18 MR. CORMIER: -- a fact.
19 JUDGE FRYE: -- expensive at that point?
20 MR. CORMIER: Sure.
21 JUDGE FRYE: Mmm-hmm. (Affirmative response.)
22 MR. CORMIER: And we usually, as in the original
23 case and as every phase of our licensing history, rely
24 upon the Department of Energy and the NRC to come up with
25 these programs that under their own charge support reactor

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1 facilities .

2 JUDGE FRYE: Well, if it is prohibitively expensive,
3 then maybe we ought just go with the -- there is no need
4 to certify it. Then what would we be asking the Commission
5 to do?

6 MR. CORMIER: Whether it is within the Board's
7 prerogative to make a determination for Argonaut reactors
8 or for our Argonaut reactor that high-enrichment fuel
9 is inherently unsafe -- I do not know what that phrase
10 means -- or just unsafe and therefore whether you can
11 deny a licensing on that basis.

12 JUDGE FRYE: Well, I think we have the answer
13 to that one. That is the purpose of the hearing.

14 MR. CORMIER: Yes.

15 JUDGE FRYE: I mean, that is why we are here.

16 MR. CORMIER: Well, yes, but I mean, the question
17 is whether it raises a generic issue, and those are,
18 as I understand it, to the extent they are generic issues,
19 rule-making issues, are questions for the Commission and
20 properly certifiable.

21 JUDGE FRYE: Well, I am not sure that is --
22 well, why do you not make your motion and make your case
23 for that, if you are so inclined to do it. And then we
24 will take it up at the proper time.

25 MR. CORMIER: If I understand what you want

1 to consider the first phase, though, if we are talking a-
2 bout the safety issues of the fuel, then that does not
3 seem to be a problem for us. We are prepared to go ahead
4 and discuss all aspects of the maximum credible accident,
5 including the way the fuel interacts with the reactor
6 and whether that poses a safety threat.
7 JUDGE FRYE: That is fine. I do not think we
8 have any problem with that at all, and I think that what
9 you are -- and I appreciate your candid statement to the
10 effect that it would become prohibitively expensive to
11 switch, because that, I think, can save us some time as
12 well.
13 So, Mr. Hirsch? Do you have a problem with
14 that?
15 MR. HIRSCH: I would like to understand the
16 implications. Did I just hear from the University that
17 if the Board determined that HEU was either a proliferation
18 threat or an accident threat that was unacceptable and
19 the Board determined that LEU would resolve some of that
20 problem, do I understand that issue now is decided, that
21 the University will not apply for LEU? In other words,
22 if the University says they cannot afford it, then I am
23 not sure why we -- which I am not sure is correct, and
24 there is a whole -- there is a DOE program and so on --
25 but if the University says it will not convert to LEU,

1 then it would seem like a certain part of the contention
2 that we have in front of you changes. It now becomes a
3 yes or no on whether to grant them the HEU as opposed
4 to --
5 JUDGE FRYE: I think that is right. That is
6 the way I understand what Mr. Cormier is saying.
7 MR. HIRSCH: It is not going to change from
8 the University then.
9 JUDGE FRYE: That they cannot -- that it would
10 be prohibitively expensive to make a conversion.
11 MR. HIRSCH: And the Board does not need then
12 to make a ruling on whether that in fact is true, but
13 rather we have an assertion simply that the University
14 will not apply for LEU if it is available, if that is
15 determined by --
16 MR. CORMIER: Judge Frye, I would appreciate
17 it if Mr. Hirsch would not put --
18 MR. HIRSCH: I am trying to inquire what you have
19 said, what you meant.
20 MR. CORMIER: We simply sai[illegible] ractical
21 matter, it would be prohibitively expe[illegible]ve, and maybe
22 I should have qualified that, now, and I will explain,
23 for us to convert. We cannot consider it. We are not
24 applying for LEU. It is, in fact, true that the DOE is
25 considering programs, and I assume they work hand-in-hand

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with the NRC and they will make some policy decisions about how far they want, or what the extent of the program will be. If they come up with a program that is going to finance all these costs for all the research reactors in the country to convert, fine. We would love to be considered as part of that program.

But our understanding is that they are not there, and we do not expect them to be there very soon. Maybe some information from the Commission on that specific question, whether there is likely to be a program soon, would be helpful. But barring that, as a practical matter, we are stuck with HEU.

JUDGE LUEBKE: But you also said you would make a case that HEU was safe.

MR. CORMIER: Yes, well, I --

JUDGE FRYE: I think that is all we need at this stage. We will go on that basis and make a determination whether it is or it is not.

MR. HIRSCH: So do I understand, then, that XIII will not be part of this first stage of hearing?

JUDGE FRYE: No. I think it would be to the extent that it alleges that HEU poses an unnecessary threat to the public health and safety because of the fact that -- or your allegation that -- it might lead to unwarranted situations, should I say, excursion, whatever. Not the proliferation

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1 part of it.

2 MR. HIRSCH: Okay. And the alternative is not

3 considered then -- whether there are alternatives available --

4 there is not --

5 JUDGE FRYE: Yes, that is the way I understand

6 the way the University wants to pursue it.

7 MR. HIRSCH: Proliferation is a second-stage

8 safety issue of the high yield --

9 JUDGE FRYE: It is the safety issue --

10 MR. HIRSCH: And alternatives is not something

11 we need to brief, at this point --

12 JUDGE FRYE: That is right.

13 MR. HIRSCH: -- to address the first stage.

14 JUDGE FRYE: That is right.

15 MR. HIRSCH: All right. I just would like to

16 make one comment, which is that we do not at this point

17 want to be seen as agreeing with the University's contention

18 that they could not afford it, that it is not available,

19 and so forth. That is their business, but that does not

20 mean that we believe that that is true.

21 MS. WOODHEAD: Excuse me. Mr. Chairman, could

22 I propose that we defer Contention XIII? If we are going

23 to deal with power excursions in the reactor as built

24 and as it operates now, we must necessarily deal with

25 the physics of the present HEU.

16

JUDGE FRYE: That is right. And that is what we would be doing.

MS. WOODHEAD: And I see no reason in getting into the physics of low-enriched uranium, because as you know from the letter that I circulated, it is still in testing.

JUDGE FRYE: Mmm-hmm. (Affirmative response.) That is exactly --

MS. WOODHEAD: Under testing by Argon (ph.), and in the event the Board fund that HEU fuel was unsafe, it would be a second step, just as containments or other modifications to the facility would be. It seems to me --

JUDGE FRYE: That is essentially the way we are proceeding.

MS. WOODHEAD: I thought you said that we were to demonstrate the safety of HEU in comparison to LEU.

JUDGE FRYE: No.

MS. WOODHEAD: Well, then XIII is really not part of the contention, is it? I mean --

JUDGE LUEBKE: As I understand it, Mr. Cormier said he would make a case it was safe. CBG probably will be considering making a case that it is unsafe. And that is it.

JUDGE FRYE: The HEU.

JUDGE LUEBKE: Yes.

1 JUDGE FRYE: But we will not consider alternatives
2 to HEU.
3 MR. CORMIER: In connection with the factor analy-
4 sis safety contention.
5 JUDGE FRYE: Well now, let's see. We had to go back,
6 did we not, to Contention XIX was it? We left that up in the
7 air, as I recall. As I recall, the problem that we had here
8 was that question of whether we should consider the probabili-
9 ties of sabotage or the probabilities of aircraft crashes as
10 opposed to simply considering the consequences.
11 MR. COMIER: Judge Frye, I would like to make
12 another distinction. The Unitersity's position is that we
13 ought to distinguish between the sabotage scenarios and other
14 accident scenarios.
15 JUDGE FRYE: Okay.
16 MR. CORMIER: My understanding -- maybe it is a
17 common-sense one, and too simple to address -- is that when
18 you talk about maximum credible accidents, you are talking
19 about accidents. We have no way ot establishing the sabotage
20 potential, the initiating event in a sabotage scenario po-
21 tential. You know, it is unlimited. It depends on how
22 serious you think people who do not agree with you may be
23 about whatever they want to accomplish with reactor sabo-
24 tage. That is different from other acts and scenarios
25 where you can

(Please proceed to next page.)

18

1 assess the likelihood and probability, it is not an unlimited
2 potential. So I have to make that distinction first.
3 And then we can in the case of what are clearly accident
4 scenarios, then we need to discuss what we are talking
5 about there, and the University's position is we are talking
6 about probability and consequences. Indeed, we think
7 there have been recent, as I recall, NRC cases that have
8 required parties to speak to both consequences and probabi-
9 lities. And that just makes sense. You cannot talk about
10 the credibility of a situation unless you address both
11 of those.
12 JUDGE FRYE: Well, I think we got on this impasse
13 initially because of Mr. Hirsch's understanding, which
14 may or may not have been correct, that Staff and U.C.L.A.
15 were taking the position that the fission product inventory
16 in the fuel, and I suppose the physical characteristics
17 of the fuel as well, were such that even if the worst
18 did occur, the releases would not be of any concern to
19 the public health and safety. And as I understand it
20 this morning, that is not the case, that you are not taking
21 that position. You are taking the position that it is
22 conceivable that the releases could be of consequence
23 to the public health and safety.
24 MR. CORMIER: Again, I get myself into troubled
25 waters when I start using words like "conceivable" or

1 "possible" as distinguished from expressions like "credible."
2 I do not know what it means to say "a conceivable initiating
3 event" and then try to assess the consequences of that.
4 I do not know if I am making myself clear.
5 JUDGE FRYE: Well, let me -- forget the event
6 and just look at the fission product inventory. Is it
7 your position that the fission product inventory in the
8 fuel could be sufficient so that if it were released,
9 it would have consequence to the public health and safety?
10 MR. CORMIER: In a strict sense, no. You can
11 take the fuel as an example -- it is absurd -- to make
12 the point -- you can take the fuel, strip all the cladding,
13 mince it up, spread it around in appropriate places, and
14 that is going to pose a significant risk to the public.
15 JUDGE FRYE: Mmm-hmm. (Affirmative response.)
16 MR. CORMIER: I mean, you place it on -- you
17 know, in physical contact with, you know, the right amount
18 with individuals.
19 JUDGE FRYE: Well, sure, I mean if you mailed
20 it out to individuals or something.
21 MR. CORMIER: Sure, sure --
22 JUDGE FRYE: But we're not talking about that.
23 MR. CORMIER: I mean, there is the quantity there.
24 JUDGE FRYE: But we are talking about, you know,
25 the quantity that is within the fuel that is within the

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1 reactor which --

2 MR. CORMIER: That is likely to be released.

3 JUDGE FRYE: -- may be released.

4 MR. CORMIER: Yes, that it is credible, could be

5 assumed to be released. That is the point we are making. The

6 quantity that is credible to consider could be released

7 in the event of any of a series of accidents is not sufficient

8 to endanger the public.

9 That is why it is important --

10 JUDGE FRYE: Okay.

11 MR. CORMIER: -- to put the word "credible"

12 in there anytime we talk about it, because if we do not

13 insert the word "credible," then we can think of all sorts

14 of crazy things. The mind, you know, can conceive of

15 many different situations. They are absurd, but I just

16 presented one, you know. You could take it all out and

17 cut it all up and put it in envelopes and mail it to people.

18 And that is going to put a lot of people at risk who re-

19 ceive it and open their mail.

20 You have to consider this in terms of the credibility

21 of the event that is causing the fission product release.

22 JUDGE FRYE: And your position is that with

23 respect to sabotage, you get almost into the mailing situation.

24 MR. CORMIER: Yes. The potential is unlimited.

25 JUDGE FRYE: Mmm-hmm. (Affirmative response.)

1 MR. CORMIER: I mean, they could send over a Cruise
2 missile if they possessed them, and they probably will if we
3 keep going the way we are going -- down the center of one
4 of our main courts. I mean, the consequences produced by
5 the reactor may be minimal compared to what is going to hap-
6 pen if a Cruise missile lands, you know, anyplace in L.A.
7 Nevertheless, I can't say that, no, there would be no conse-
8 quences in addition to those.
9 I mean, I can't -- there is -- the potential is
10 unlimited. That is the only way I can express it. And
11 that is why it is -- it is not an accident to start
12 with. It ought not to be grouped with a maximum credible
13 accident.
14 JUDGE FRYE: Umm-hmm. (Affirmative response.)
15 MR. CORMIER: It is a different type of thing.
16 Perhaps it ought to be treatead with -- in connection with
17 Contention XX. I do not know. But having said that --
18 JUDGE FRYE: I am wondering -- I am wondering if
19 sabotage should be separated out.
20 Ms. Woodhead, what do you think?
21 MS. WOODHEAD: Yes, sabotage is no accident, and
22 I thought that what we were going to litigate was postu-
23 lates credible accidents, and there is no way to come up
24 with something that is reasonable in terms of what a
25 saboteur might do and then analyze what could happen.

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1 You can sort of make a sort of off-the-top-of-your-head
2 statement that if a severe earthquake occurred and the
3 entire Hall collapsed and crushed the core, that
4 it is likely that sabotage with explosives would not be
5 any worse. But that is assuming that the amount of explosives
6 is equal to an earthquake. It is all very nebulous and
7 arbitrary. And I think the important thing is, sabotage
8 is not an accident, and it is not something that we ever
9 deal with in terms of accident analyses.
10 JUDGE FRYE: Mr. Hirsch?
11 MR. HIRSCH: First of all, it seems to me that this
12 conversation is untimely. This contention was admitted
13 three years ago.
14 JUDGE FRYE: Well, we are just talking about
15 deferring it.
16 MR. HIRSCH: Well, now I hear discussion that
17 it is not properly part of Contention XIX, which seems
18 to me to be attempting to relitigate the matter about the
19 admissibility of sub-part 1 of that contention.
20 Secondly, it seems that we again have a threshold
21 situation. The Staff and the University have claimed
22 that they need not protect against theft of the material
23 or sabotage. And as one of the arguments the Staff has
24 put forth about why they need not protect against sabotage
25 is the assertion that sabotage cannot cause worrisome

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consequences at a research reactor.

This Board has to make a basic judgment as to whether this reactor is safe or not, whether it poses an unnecessary risk to public health and safety. Up until today, the opposing parties argued that nothing that can be done to this machine -- if you pull the control knobs out, if you dump something into it, if you stomp on it, if you put a monkey at the control panel, if someone does sabotage to it, nothing can hurt the public in any serious way. And that is why the Board issued that ruling that we shou[illegible] go to hearing on that question.

And now all of a sudden, there is waffling, there is changing. How are we going to judge whether this reactor is safe if we cannot determine whether or not there are serious consequences from the basic kinds of adverse things that can happen to it: earthquake, power excursion, fire, sabotage. This is a central issue, and we cannot start discussing whether the security is adequate until we find out whether that matters, whether, as the Staff claims, sabotage cannot do anything worse than the earthquake.

We are here to protect people, and the things we have to protect people from are the effects of possible adverse events at the facility. And sabotage is certainly one of those things that one has to consider.

JUDGE FRYE: But why should we take it up

now as opposed to deferring it until later?

MR. HIRSCH: Because technically it is the same issue. It is -- the issue is whether or not if the fuel were severely damaged by explosion or by an incendiary device, the characteristics of the fuel are such that it would retain most of the fission product inventory. It is precisely the same technical issue with the same witnesses and the same matter before us.

JUDGE FRYE: Well, isn't it, then, the same issue that you have basically if you're postulating an earthquake or an aircraft crash?

MR. HIRSCH: Except sabotage as indicated in a couple of our witnesses' declarations could have consequences more severe, if one intentionally tried to -- you know, without going into details -- both damage the fuel mechanically and create fire. It was indicated by one of our witnesses that the estimate of fission product release would be somewhat higher.

We basically have an assertion of inherent safety: fuel such that you cannot sabotage it. The facility is such that earthquakes will not seriously damage it, that power excursions cannot happen, it is against the laws of physics. It seems to me that is what is before this Board initially. In deferring it, I do not see how we then make a determination of inherent safety.

JUDGE FRYE: Go ahead, Mr. Cormier.

MR. CORMIER: I must object to Mr. Hirsch's constant mischaracterization of the University's position. We have said it, stated it as succinctly as we could in our motion for summary disposition. We talked about inherent self-limiting characteristics of the reactor that made it non-credible to consider the maximum credible accident for this facility as posing a risk to the public. It is as simple as that.

All the words were not, perhaps, as carefully chosen as they could have been, but they were well-chosen. We have talked about accidents. We are talking about credible accidents. We are talking about posing significant risks to the public. We made no larger claim than that. We never have.

We certainly never said it is inherently safe from sabotage. That is an absurd proposition. Or that it is inherently safe, except as a shorthand for what I just mentioned before.

JUDGE LUEBKE: Well,what is involved in an explosion here is a concept of degree of dispersal of the fission products, more or less due to an earthquake, due to some other event, due to sabotage. And I think therein lies the argument, the degree of dispersal.

MR. CORMIER: To the extent we are talking about an explosion and dispersion of fission products similar

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1 to what occurs in an earthquake, like the earthquake analysis
2 that Staff is going to present, sure, we are going to
3 have an answer to this type of question. But certainly, all
4 of us can conceive of sabotage scenarios that are much
5 more severe than that. The problem with conceiving of
6 it: It is hard to conceive that anything having to do
7 with the reactor would be worse than reactor sabotage
8 itself, and that is the real thing.
9 JUDGE FRYE: Well --
10 MR. HIRSCH: Judge Frye?
11 JUDGE FRYE: Yes, Mr. Hirsch.
12 MR. HIRSCH: Mr. Cormier has made comments about the
13 outer limites of what would have to be considered under sabotage,
14 a Cruise missile coming down a beam port and so forth.
15 I have faith that the Licensing Board can make a determination
16 of discussions of accidents or sabotage or comets coming
17 down or Cruise missiles. We are talking about the serious,
18 basic, rational kind of concerns for public health and
19 safety. And there are really essentially only two issues
20 that the Licensing Board has to reach on the inherent
21 safety question.
22 One: What is the worst thing that can happen
23 to the facility? And two: What is the fission product
24 fraction that gets out and the dose that would be consequent
25 to that fraction? The NRC Staff contends that the worst

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1 possible event would result in the release of .189 per
2 cent of the radio-iodines and virtually nothing else.
3 The University in its Application says that the worst
4 possible event at the facility -- credible event at
5 the facility -- is the release of one ten-millionth of
6 the core inventory. Bridge the Gap has contended
7 that a much larger fraction is credible.
8 And we cannot reach that unless we can determine
9 what is going to release that material and then determine
10 how much is going to get out and what the consequences
11 are.
12 JUDGE FRYE: Let me just for purposes of clarifica-
13 tion -- I take it that the only problem presented here
14 by Contention XIX is with regard to paragraph 1, that
15 everyone agrees that 2, 3 and 4 are appropriate for consi-
16 deration now as opposed to later?
17 (No response.)
18 JUDGE PARIS: Any objections? Hearing none --
19 MR. CORMIER: No objection from the University
20 in the general sense that we intend to treat these conten-
21 tions.
22 JUDGE FRYE: Yes. All right, well, we will
23 cover this question on point 1 in our pre-hearing conference
24 order.
25 MR. HIRSCH: Judge Frye?

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JUDGE FRYE: Yes, Mr. Hirsch?

MR. HIRSCH: This may not be of assistance, but if it would help for CBG to postulate a sabotage-initiating event so that the University does not have to worry about Cruise missile, whatever, so that we know what we are talking about as the initiating event, we would be willing to do that.

JUDGE FRYE: Why do not you and Mr. Cormier and Ms. Woodhead -- why do you not discuss that with them. See if that will help, and let us know.

It strikes me that it would prove helpful. The other thing that occurred to me was that at some point, whether this is taken up now or later, there are likely to be objections to the postulated event. And that point would probably come up in the course of an evidentiary hearing, and we would probably have to rule on it at that time. If it were possible for you to agree as to what postulated events ought to be considered in advance, I think that would be helpful, regardless of when it comes up in the hearing.

That completes, I believe, the contentions, does it not? We have been through the six contentions and number XIII.

Mr. Hirsch, you mentioned earlier something about wanting to talk about the statements of fact that have

1 supported the motions for summary disposition.

2 MR. HIRSCH: Oh, I remember. Oh, yes. I think

3 we have resolved that.

4 JUDGE FRYE: You have resolved that.

5 MR. HIRSCH: I think I now know which ones of

6 those statements of facts would not be included at the

7 first stage.

8 JUDGE FRYE: Okay.

9 So that, then, brings us to the item -- well,

10 I guess we will come back to the item that we took up

11 which led us into this discussion, and that was the amount

12 of time necesary for hearing.

13 Has this discussion that we've had had any influence

14 on your conclusions with regard to the amount of time

15 necessary?

16 MR. HIRSCH: I think that our original estimate

17 of needing to set aside about three weeks, and hoping we

18 could do it in less, would be the case, if we are not

19 going to be dealing with the probability of the initiating

20 event. Our view would be if the probabilities are to

21 be considered, then it would need to be considered longer,

22 because we would then need to bring in evidence regarding

23 history, violations, maintenance problems and so forth.

24 Either that much will have to come in so we

25 can create a foundation for probabilities, in which case

1 it will take longer at that first stage, or if it is deferred
2 to the second stage, then we think that a two- to three-
3 week period would be about right.
4 JUDGE FRYE: Okay.
5 Looking at our calendar, we can make available
6 the first two weeks of May and the fourth week of May
7 for hearing. How does that strike the parties?
8 MR. HIRSCH: When the parties had their conference
9 call, we had discussed June as a possibility in terms
10 of the availability of certain witnesses. I know staff
11 had some difficulty with at least one, and that we had one
12 or two tied to the academic calendar. So we have not
13 contemplated much further regarding May.
14 Perhaps we should hear from others as to whether
15 they have problems, but we might have some problems in
16 May.
17 JUDGE FRYE: Well, let me -- perhaps you all
18 need to address this in a little more detail with your
19 witnesses. I do not know.
20 In looking down the list, and of course, this
21 is gleaned entirely from the motions for summary disposition
22 and the responses, that so far as U.C.L.A. was concerned,
23 that the principal witness would be Mr. Ostrander.
24 MR. CORMIER: Maybe, maybe not. Likely, yes.
25 We do not expect to have to require a lot of witnesses,

in any case.

JUDGE FRYE: And they would all be local in any event, I would take it?

MR. CORMIER: Presumably, but not necessarily.

JUDGE FRYE: What I am getting at is whether there would be scheduling problems in having them come to town for hearing if they are out of town. If they are local, you know, they can come over and testify and then go back to their regular

MR. CORMIER: We do not anticipate problems at this time. We just do not know. We will have to see what the Board schedules. We are anxious to proceed with this next phase as soon as possible. It has been almost three years to the day since we filed this Application.

JUDGE FRYE: Okay.

MR. CORMIER: We had hoped we would be able to work around to accommodate our schedules to the Board's.

JUDGE FRYE: Well, the Board's schedule has got to be set to accommodate the witnesses, to the extent that it can be. Obviously, we cannot decide the case if we do not have the testimony.

Staff, I see again, looking at the motion for summary disposition, it looks like Mr. Hawley and Mr. Bernard and perhaps Mr. Wohl, Cort and Block would be your witnesses.

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MS. WOODHEAD: I do not believe we will need Mr. Block. He was -- his affidavit concerned argon emissions.

JUDGE FRYE: Okay.

MS. WOODHEAD: Which is the deferred part of Contention XV.

JUDGE FRYE: Right.

MS. WOODHEAD: But I did propose to try to get the Office of the Los Alamos Report and Brookhaven Report, but we have to go through the Division of Contracts and see if we can find the funds to get them here. And I did not have time before we left the office to inquire about that.

JUDGE FRYE: So you do not know at this point when they might be available, if they are available.

MS. WOODHEAD: No, I do not. I have not contacted them since I do not believe I am authorized to do that directly.

JUDGE FRYE: I see.

For Bridge the Gap, it looked like Mr. Norton, Dr. Kaku -- is that pronounced correctly?

MR. HIRSCH: Kaku.

JUDGE FRYE: Kaku. Dr. Kaku, DuPont -- perhaps Monosson?

MR. HIRSCH: Monosson.

JUDGE FRYE: Monosson, Aftergood, Warf, Plotkin, Pulido, and then I see you were relying also on Hawley to a certain extent, Foster and Lyon.

MR. HIRSCH: With Foster and Lyon, their declarations were primarily on Contention VI, the argon emissions.

JUDGE FRYE: Okay.

MR. HIRSCH: They may have some relevance to the excursion matter, but we were not anticipating calling them.

Is there one addition?

Dr. Beyea was one of the other affiants on the dispersion --

JUDGE FRYE: Mmm-hmm. (Affirmative response.)

MR. HIRSCH: -- issue.

The ones that -- I have checked the availability of most of those, and the period in mid-, late June, early July, they are available. Since Staff had indicated difficulty with May, that is the period that we had agreed to focus our questions on. So that is what I did.

There are periods where Dr. Kaku is not available in May and periods when Mr. Norton is not. It might be possible to find them available at the same week.

JUDGE PARIS: Are you putting them on as a panel?

MR. HIRSCH: We intend too, yes.

Dr. Warf is unfortunately still in Malaysia, and it takes weeks to get a letter to him --

JUDGE FRYE: Mmm-hmm. (Affirmative response.)

MR. HIRSCH: -- to find out when he will be back.

Mr. DuPont will be available in that May-June period, at least it looks like that now.

Mr. Aftergood may be in Egypt. We will not know for another few weeks.

Mr. Pulido is available at that time, and Dr. Plotkin is available in that June period, which is what we checked.

Now, if there is another period for us to look at, I can make some calls.

Dr. Monosson you mentioned also. His declaration was primarily on the matter of violations and the safety significance of those violations. And although he may have some small role to play in the fire analysis, we were not at this time intending to call him at that first stage.

JUDGE FRYE: Mmm-hmm. (Affirmative response.)

MR. HIRSCH: I do not know if I have missed anyone else.

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JUDGE FRYE: Mr. Cormier, you will go first since you are the Applicant and have the burden of proof. Would you have your witnesses available in May to do that?

MR. CORMIER: When in May?

JUDGE FRYE: The first two weeks, preferably the first week.

MR. CORMIER: We have a problem with counsel in May. It's not really our witnesses. We would have to consider that, whether that is going to be so debilitating to our presentation that we would want to range around it.

JUDGE PARIS: You have three of them.

MR. CORMIER: I think we would be able to handle the witnesses.

I think the first two weeks of May would be okay.

JUDGE FRYE: When can you let us know for sure?

MR. CORMIER: Within a week, next week.

JUDGE FRYE: Okay. When can you know when your witnesses will -- whether they will be available and when they will be available?

MS. WOODHEAD: I have three witnesses that are not available May 15 to 20. Were you proposing May 1 to May 14? In other words, I am not quite sure if this would give them time to get back to their --

JUDGE FRYE: Yes, Monday, May 2, to the 13th, Friday the 13th.

JUDGE PARIS: We might as well tell you now that the annual Panel meeting, the ASLBP meeting, is scheduled for the 16th of May. Presumably, we will be expected to be there.

JUDGE FRYE: Well, we are expected to be there. However, it if becomes a question of not being able to find any other time to hear someone, we could probably manage to be here instead.

MS. WOODHEAD: I will certainly try. I would have a big problem at the office with this schedule. I did not anticipate its coming up so quickly. And I will do what I can in getting people's work assignments rearranged.

JUDGE FRYE: I take it Mr. Hawley is not one of those that you hve to check with contracts instead of whether you can --

MS. WOODHEAD: No, Mr. Hawley is available.

JUDGE FRYE: But he would be available during that--

MS. WOODHEAD: He is intended to be a witness if necessary.

JUDGE FRYE: Yes, that was my understanding.

MS. WOODHEAD: Right.

JUDGE FRYE: And obviously Mr. Bernard will be.

Dr. Wohl or Mr. Wohl is also a full-time employee, is he not? A Staff member?

MS. WOODHEAD: He is. The Accident Analysis Branch is overworked at this point, and they had scheduled this case

for later in the year. So I will have to talk about rearranging schedules for the Staff members in addition to the two members of the laboratories that I have not contacted.

JUDGE FRYE: Um-hm.

MR. CORMIER: Judge Frye?

JUDGE FRYE: Yes?

MR. CORMIER: If it is up to the University to accommodate Staff and Intervenor in June, we did not mean to imply that that was unacceptable to us.

JUDGE FRYE: Well, June is very difficult for us. And I think if we miss May, we are probably going on to August. We prefer not to do that. We would very much like to get it out of the way in May if possible, and have a decision out by August.

Now, obviously, if witnesses can't be available in May, we are just going to have to make some other accommodation.

MR. HIRSCH: I can give you a little bit of information. Dr. Cocker is to be in Berlin May 9 to 14. Either the first week in May was good or bad for Mr. Norton; I have to check. My note wasn't very clear on that because I wasn't thinking in terms of May.

JUDGE FRYE: He's 9th to the 14th?

MR. HIRSCH: The 9th to the 14th, Dr. Cocker is in Germany. And he is busy on the 6th. The rest of May was okay

for Dr. Cocker as of a few days ago.

I will have to check with Mr. Norton and with the other people.

JUDGE FRYE: How much time do you anticipate you are going to need for cross-examination of Mr. Cormier's witnesses?

MR. HIRSCH: You know our difficulty. Mr. Cormier doesn't know who he is calling or how many people he is calling. So it is very hard for us to predict what our cross will be like.

If it's Mr. Ostrander, I would think a day, a day and a half for Mr. Ostrander. I don't know if they are intending to call anyone else.

JUDGE FRYE: Well, I guess about all we can do at this point is to get the witness list lined up and the available dates.

MR. HIRSCH: Might I inquire? You indicated that there were two weeks available in the early part of May, and possibly a third week later? Or did I mishear you?

JUDGE FRYE: Possibly a third week later. We have the first two weeks of May, the week of May 2, the week of May 9. The following week is the Panel meeting which we are expected to attend. As I indicated, if there is an absolute crisis about getting into hearing, perhaps we can arrange to be here rather than at the Panel meeting. But we are expected

to be at the Panel meeting the week of May 16. Then we have the week of May 23 free. That would be the third week.

It had been our hope that perhaps we could get through the direct cases the first two weeks of May and hold the fourth week of May available for rebuttal.

MR. HIRSCH: The one problem with that in terms of rebuttal would be that will mean two trips for some witnesses, it would seem.

JUDGE FRYE: Let us take a break at this point and let you all cogitate about this.

MR. HIRSCH: One last question, if I might, on that matter. When were you anticipating pre-filed testimony being served?

JUDGE FRYE: Well, that would be the next step once we get this.

MR. HIRSCH: Okay.

MR. BAY: And are we assuming that the hearings will be somewhere in the L.A. area?

JUDGE FRYE: That is correct. That is, incidentally, another topic we wanted to take up with the parties informally, as to possible location for the hearing in the L.A. area.

Why don't we take about 20 minutes to confer and think about this? We will take about a 20-minute break. If that is not enough, let us know.

6

(Brief recess.)

JUDGE FRYE: Can we go back on the record, please.

Have you all had an opportunity to consider the scheduling? If so, have you had any results that you can announce?

MR. HIRSCH: We have gotten in touch with Mr. Norton, and we will have those results in a minute. We are now trying to reach Dr. Cocker. So I would like to wait, if I could, a minute for my response until I have that information here. I think all of us are having some problems. Maybe they can be resolved.

JUDGE FRYE: Well, should we wait until you have heard before we go ahead?

MR. HIRSCH: No, that will be fine. I just can't tell you now about Dr. Cocker and Mr. Norton until I get the message from the people who have found them.

JUDGE FRYE: I see.

Obviously, you haven't been able to do anything, I am sure, Ms. Woodhead.

(Ms. Woodhead nodded assent.)

JUDGE FRYE: Mr. Cormier?

MR. CORMIER: We can bring up one matter in the interim. We intended to bring it up, but you hadn't gotten to it on the agenda. But I think it is pertinent now.

JUDGE FRYE: Um-hm.

7

1 MR. CORMIER: The Board has indicated that it at
2 least wants to discuss Contention II of the class of license.
3 The University has applied for a Class 104 license and only
4 for that license. It has no intention of applying for a
5 Class 103 license.
6 The University would respectfully request that that
7 issue be determined first, before anybody goes to the expense
8 of preparing expert testimony on the major safety issues. We
9 think that is only prudential at this juncture in the pro-
10 ceedings.
11 JUDGE FRYE: Well, my main question with regard to
12 that contention is what difference does it make whether you
13 apply for a 103 or a 104? Have you looked at it from that
14 point of view? Obviously, you must have, because you don't
15 want to go for a 103.
16 MR. CORMIER: Well, we have looked at it. It makes
17 no difference. But that doesn't suggest to us that want to
18 apply as a 103. We have no intention of applying as a 103.
19 We are a university research reactor facility, and we think
20 we are properly licensed under that. We think the Regulations
21 support us, as we have briefed.
22 Incidentally, the suggestion that has been made in
23 this proceeding way back in September of, I guess, '80, that
24 there were different standards that applied -- we are waiting
25 to hear what different standards do apply because we don't

think there are any different standards, safety standards. There are consequences. There is a higher filing fee; we would certainly want to avoid that. There is, I believe, though I may be incorrect on this -- my understanding was there is an ACRS review mandatory with a 103 licensee. And the other consequence, I think, that there is a mandatory hearing notice when you come up for relicensing, which is a matter that is somewhat moot now. But those --

JUDGE FRYE: That would certainly be moot.

MR. CORMIER: Yes. As far as we know, there's no different safety standards or requirements.

But the point is that we think it is prudential to resolve that issue now. If we are not properly classified as a 104 licensee, then we can all go home a lot earlier in this proceeding. And we would like to get that resolved.

And if the parties, as was suggested at the break, are inclined toward the view that maybe we can't get this thing together until June or thereafter for different reasons of different parties, then we would like to consider using the May dates for resolving those threshold questions.

JUDGE FRYE: Um-hm.

MR. CORMIER: I would throw in financial qualifications too. There is nothing we are going to change in our financial situation. You can read about it in the papers just as we read about the federal government's financial situation.

You know, if we are unqualified, for whatever reason, then again we all go home. We can't change that, those situations. So we would like to at least, if we can't get it together for safety issues in May, reserve those times for resolving these threshold questions.

JUDGE FRYE: Okay.

Mr. Hirsch, have you gotten --

MR. HIRSCH: Half of it. Dr. Cocker is not available by phone at the moment. It is 6:00 in New York, and he is not in his office.

Mr. Norton's availability is difficult. The first week in May he will be gone. The last week in May he will be gone. June at the moment is open. He will be gone July 6 to 25, August 10 to 30, September 2 to 12, September 22 to October 3. I thought I had better find the whole thing.

Now, my memory is that crosses over, unfortunately, with the time Dr. Cocker was unavailable in May. He is gone from 6 to 14.

JUDGE FRYE: Second week, that's right.

MR. HIRSCH: Yes. And I haven't been able to check with others yet. I don't even think I could get a letter to Malaysia and back in time before the hearing.

JUDGE FRYE: Who is it in Malaysia? I forget.

MR. HIRSCH: Professor Warf.

JUDGE FRYE: Professor Warf. And you don't know

10

1 when he is due back.

2 MR. HIRSCH: Well, he is on leave. And I have no

3 idea when he is intended to be back.

4 JUDGE FRYE: Is he on sabbatical?

5 MR. HIRSCH: Right, but I don't know how long a

6 sabbatical.

7 JUDGE FRYE: Well, I don't know whether we can

8 really --

9 MR. HIRSCH: That --

10 JUDGE FRYE: Excuse me.

11 MR. HIRSCH: Yes, I was just going to say that

12 Professor Warf is not key to that matter. We hve others who

13 can testify to that issue. And we don't know if the May time

14 is any worse or better for Professor Warf.

15 JUDGE FRYE: Well, it seems to us that we are in a

16 position where the parties are going to have to -- obviously,

17 can't do it here, but are going to have to find out when their

18 witnesses will be available. And it looks more and more, I

19 suppose, like May is going to be very difficult from that

20 point of view.

21 MR. HIRSCH: Might I inquire once again of the times

22 that are bad for the Board?

23 JUDGE FRYE: June and July are very bad for the

24 Board.

25 MR. HIRSCH: I see, the entire two months.

11

1 And August is not desirable but is not out of the
2 question?
3 JUDGE FRYE: Well, we had hoped to be able to get
4 this phase done by August. By that I mean have a decision out
5 by August.
6 JUDGE PARIS: Are your people available in August?
7 MR. HIRSCH: That we have only begun to look into
8 too. I guess the difficulty is you directed us to have a dis-
9 cussion among the parties and to try to find a time that
10 seemed agreeable. So we focused our attention on the time
11 that seemed workable among the parties.
12 JUDGE FRYE: And it turned out to be June.
13 MR. HIRSCH: Right.
14 JUDGE FRYE: Well, I think you are going to have to,
15 all of you, since you have got a number of witnesses who are
16 prospective -- and I think there is a legitimate concern here
17 about not having to make people come twice -- that we ought
18 to have all of you consult after you have had a chance to
19 check the availability of the various witnesses. And then we
20 will talk about it some more on a conference call.
21 JUDGE PARIS: With regard to August, you asked about
22 the Board; or at least you seemed to be asking about the
23 Board.
24 MR. HIRSCH: Um-hm.
25 JUDGE PARIS: We have no conflicts scheduled in

12

1 August. We simply hope to get this done before then.

2 JUDGE FRYE: So why don't we see what the witness

3 situation is, and then we will take it up on a conference

4 call. And when you talk to your witnesses, be sure you don't

5 eliminate any time periods, because I have a feeling it may

6 be difficult to coordinate all these various individuals in

7 one particular time period. So when you talk to them, get

8 their availability on into September without leaving anything

9 out; and we will see how it all sorts out from there.

10 Now, we can go back, I suppose, at this point.

11 Since we started on it, we can go back to Contention II.

12 Mr. Hirsch, my real concern there is where are you

13 going with it. I mean, if you want it, what would ensue? Let

14 me say in preface to that that I took a very quick look at the

15 Regulations, and I pretty much agree with Mr. Cormier, on a

16 tentative basis, that the only difference I could say that a

17 103 as opposed to a 104 meant was mandatory ACRS review. I

18 wasn't even certain you pay a higher fee. But maybe you do.

19 I don't know for sure.

20 MR. HIRSCH: Let me preface my response by saying

21 that the practical consequences of a determination by the

22 Board that the University is more properly classified as a

23 commercial reactor as opposed to an educational research reac-

24 tor seems to have been answered by the University, which is

25 that they would not apply for the commercial category of

13

1 license.

2 In terms of what the Regulations and the law in-
3 volve, there are a few additional matters besides those that
4 you mentioned, that we have seen in a preliminary review of
5 the Regulations and the statute. And I will just summarize
6 them at the moment. I am focusing only on the implications,
7 the practical consequences for NRC Regulations and the stat-
8 utes applicable to NRC. There would be, in our view, poten-
9 tial other consequences under IRS rules, under state law, uni-
10 veristy policy, and so forth. But that, I assume, is outside
11 the area that you wished us to address.

12 JUDGE FRYE: Yes, I am just concerned about NRC.

13 MR. HIRSCH: The University at the present time has
14 exemptions from certain filing fees for license renewal, for
15 consideration of the application, and for payment of inspec-
16 tions. So under Part 140 or 170 there would then be increased
17 fees for the University.

18 They would also lose part of their exemption under
19 Price Anderson, and they would have to have higher insurance
20 in case of accident.

21 Under 10 CFR 50.42, they would then come under the
22 standard of measuring the useful purpose of the facility, pro-
23 portioned to the amount of special nuclear materials to be
24 used. ACRS review and mandatory hearing, which we already
25 have a hearing, but --

14

1 JUDGE FRYE: It wouldn't be mandatory, would it?

2 MR. HIRSCH: If there had not been an Intenvenor,

3 there would be mandatory hearing.

4 JUDGE FRYE: Because there was no construction per-

5 mit here.

6 MR. HIRSCH: Well, the Regulations just indicated

7 that if it was the different class, it would be mandatory.

8 And I assume that means that the Board would have to -- Oh,

9 under this construction phase; I see what you mean.

10 JUDGE FRYE: As I recall, Section 189 says that an

11 operating-license hearing is optional, provided that there has

12 been a construction-permit hearing.

13 MR. HIRSCH: I see. But in any case, in this case

14 there would then be a mandatory hearing. And I assume that

15 means that the Board would have certain responsibilities be-

16 yond just what has been put in contention.

17 In addition, there is the antitrust review matter.

18 The central question, though, is not the Regulations

19 but the statute. The history of the development of the dis-

20 tinction between Class 103 and Class 104 was a determination

21 by the Congress that research and educational facilities were

22 more socially beneficial, had some higher value to society,

23 than commercial, and therefore were to be regulated signifi-

24 cantly less than the commercial activities. The difference

25 between classes in the Atomic Energy Act, between Class 103

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1 and 104 has to do with the amount of regulation, basically
2 the standard which a research reactor must meet as opposed to
3 a commercial reactor.
4 And so in general the difference is that there is
5 a presumption of social usefulness, of higher social useful-
6 ness, in a category of research and educational. And, there-
7 fore, as the Board makes a determination of safety matters,
8 if this were a commercial facility -- Certain risks that might
9 be acceptable if it were a research and educational facility
10 might not be acceptable if it's determined to be a commercial
11 facility.
12 In the practical sense, if you determine that the
13 reactor is primarily being used to change the color of flawed
14 diamonds and to assay mining samples, as opposed to the inten-
15 tion for which it was built, the license for which they have
16 requested, and the class they are supposed to be under, which
17 is research and education -- if the Board makes that determi-
18 nation, we believe that what comes with that is a higher stan-
19 dard of safety and a more strict requirement that the public
20 health and safety be protected.
21 JUDGE FRYE: In the Regulations.
22 MR. HIRSCH: In the statute.
23 JUDGE FRYE: In the statute.
24 MR. HIRSCH: Right.
25 JUDGE FRYE: You see, when you look at the

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1 Regulations, every time it mentions Class 103, it also uses
2 the term "power reactor" in --
3 MR. HIRSCH: Well, in many cases, aside from the
4 ones that I have mentioned.
5 However, as I understand it, there has not been a
6 reactor which has been licensed as a research reactor that was
7 later determined to have violated that requirement of being
8 used primarily for those purposes and had that license
9 changed. And I think that is why there are no regulations for
10 that kind of reactor, because at the moment I don't know if
11 there is any.
12 If you determine that the University has failed to
13 use the reactor as intended and required, primarily for re-
14 search and educational purposes, the fact that there are no
15 regulations that describe what the higher standard is is sim-
16 ply the same problem as in the Columbia case. The Board would
17 simply have to make its own determination of what is accepta-
18 ble in the absence of those regulations.
19 JUDGE FRYE: Isn't this a little inconsistent in the
20 sense that -- I think it is still safe to say that the consen-
21 sus of the parties is that the machine must be such that --
22 and I am trying to avoid Mr. Cormier's pitfall here --
23 MR. HIRSCH: Yes, we have agreed that it is short-
24 hand.
25 JUDGE FRYE: Yes, that inherently it must be so

1 self-limiting as to present no risk.

2 MR. HIRSCH: Um-hm.

3 JUDGE FRYE: And if you have that situation, I don't

4 see how any higher standard really could be met. Isn't that

5 about the highest standard you could have?

6 MR. HIRSCH: Correct. That, I think, is always a

7 standard for the kind of reactor, the design, and the place-

8 ment. It is a nonpower reactor without a containment struc-

9 ture, in a crowded area, without an exclusion zone. What it

10 is used for is irrelevant to that standard as to whether it

11 has to be inherently safe. It's because of the kind of reac-

12 tor and the placement that it has to be inherently safe.

13 The question is -- Let's say the Board decides that

14 it is not fully inherently safe, but still might be licensable

15 if there is enough engineered safety features to compensate.

16 We would argue that because the use of the facility is not for

17 research and education primarily, a higher standard of cer-

18 tainty is required. Obviously, if the standard is simply

19 inherent safety one way or another, then you can't have a

20 higher standard than that. And we will argue that that is the

21 standard that this reactor must meet. But I don't know that

22 that issue has been settled here.

23 JUDGE FRYE: I thought everyone here agreed that

24 that was the appropriate --

25 MR. HIRSCH: That the reactor must be inherently

safe.

JUDGE FRYE: Mr. Cormier? You maintain that it is inherently safe. I take it that --

MR. CORMIER: Using "inherently safe" as the shorthand --

JUDGE FRYE: As the shorthand.

MR. CORMIER: -- for my fuller description which is contained in our motion for summary disposition.

JUDGE FRYE: You maintain that that is the appropriate standard.

MR. CORMIER: Yes.

JUDGE FRYE: Okay. Ms. Woodhead?

MS. WOODHEAD: Yes. I -- well, the Columbia decision said it must meet Part 20, even under accident conditions. And those are rather severe limitations. We must go by the Regulations rather than arbitrary standards.

JUDGE FRYE: Right, we must. But more than that, the reactor started out as being designed for use in training students and for use on a campus. And, therefore, the whole proposition behind it was that in the event of any untoward event, it would shut itself down without any adverse consequences. And that was the whole premise behind it. And I don't think anybody questions that premise. I want to be sure that is true.

MS. WOODHEAD: That's true. In my understanding,

the intent of the designers was to create a failsafe mechanism for training purposes.

JUDGE LUEBKE: Well, now as to the matter of commercial use, I don't remember. Does the application document make any statement about it?

MR. CORMIER: The application applies for a 104 license, which is the educational research classification.

JUDGE LUEBKE: Um-hm, but you don't bind yourself to not using it 90 percent of the time for commercial?

MR. CORMIER: Certainly not. There is a test in 10 CFR 50.22 you must continue to satisfy. And there is legislative history which the University has briefed in its motion, explaining how you apply that test and what it was meant to be directed towards.

JUDGE LUEBKE: So in that sense, then, the application states your position, something that you will intend to abide with, with respect to commercial use.

MR. CORMIER: As a condition of a license.

JUDGE LUEBKE: Yes.

MR. CORMIER: Yes, it's a condition of the license. Certainly.

JUDGE FRYE: Well, Mr. Hirsch, it seems to me that everyone here agrees that, in the shorthand term, it is inherently safe.

MR. HIRSCH: It must be. Let me add, that deals

with the accident consequences. If you turn, for example, to normal operations, research reactors are required to meet a standard ALARA, As Low As Reasonably Achievable. There is no numerical guideline for what is ALARA.

We would argue that as we look at those emissions during normal operations, that a higher standard would be required of the University in terms of protecting the public, keeping those emissions as low as possible, were it found to be used primarily for coloring diamonds and assaying ore samples than if were found to be primarily used for research and education, because of that standard in the Atomic Energy Act which exempts research reactors that are truly used for research and education from all but the very minimal regulation.

JUDGE FRYE: Let me switch gears here a little bit. There was some disagreement, I think, in the papers we got with regard to whether the University's computations of the amount of time the reactor was used for commercial purposes were accurate. But I wanted to check as to whether it is generally agreed, without getting into the exact figures, that the amount of time is -- I forget exactly how it came out -- in excess of the amount of instruction time. Is that correct or not?

MR. CORMIER: That is in error. We are in an apples-and-oranges situation, Judge Frye. We are prepared to go through an exposition of that entire thing if the Board is

prepared to rule on that. If not, we will reserve it for the hearing.

JUDGE FRYE: What I am wondering is whether -- The reason I put this question was to see whether this was one we might be able to deal with on summary disposition and have Mr. Hirsch file the remainder of his answer and proceed on that basis, and avoid the necessity for a hearing.

MR. CORMIER: The issue is fairly simple if you look at it in a common-sense way. The provision in 10 CFR talks about costs devoted to commercial services.

JUDGE FRYE. Then we basically have an argument about what is the appropriate accounting method.

MR. CORMIER: No, not really. CBG will purport to say that we have an argument about the appropriate accounting method. It is really not -- It's very simple.

Ask yourself the question -- and we are prepared to demonstrate with data, and I think we have -- We have one commercial user, a single individual, a former geology student who received his doctorate and began an ore-assaying business. He doesn't do any gem colorations. I think in five years on an experimental basis, on four occasions maybe totalling two hours of total time gems were inserted to see whether you could do anything with it. Clearly, research or experimental. It is not a business, and nobody is engaged in that. And I think we would all be better off if Mr. Hirsch would stop

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1 bringing that up constantly.

2 This one single individual who runs an ore assaying
3 business comes in and uses the reactor for activation analy-
4 sis. He uses it when it is not used for student instruction.
5 It is on an excess-capacity type of basis or concept. The
6 reactor is sitting idle, and there is no way that he preempts
7 any of the ordinary activities of the reactor.

8 Because of an ambiguity in how you -- We have a
9 concept called "port hours," which is the way we bill him for
10 these services. We bill him for services just like the
11 library bills members of the public for services or the compu-
12 ter center on campus bills members of the public if they want
13 to come in and time-share on the computer system.

14 Those port hours have been equated to operating
15 hours on the reactor. That's one mistake that is made since
16 the beginning of this thing, despite our attempt to explain
17 the difference. Perhaps we haven't done it very skillfully,
18 but we are prepared to do it again whenever the Board wishes
19 to see that demonstration.

20 This single user is the only so-called commercial
21 user. We have labeled him an "extramural user" just to clari-
22 fy our terminology. But we have stipulated that, yeah, he is
23 in business for himself. He is in a for-profit business. And
24 as CBG uses the term, he is "commercial." And we are not
25 disputing that. But we do choose not to use the word

"commercial" because we think it is conclusionary and it doesn't describe the University's activities.

Aside from that activity, which has picked up since 1978 only -- there is very little commercial activity in the preceding 16, 18 years, whatever it is, one or two hours a year -- there has been no commercial activity at the facility.

If you take that activity and you say, "Okay, what costs is it imposing on the system?" you very easily -- well, not easily. It involves some detail. But you arrive at a reasonable conclusion very quickly. He comes in. We turn the electricity on for him. We run water for him. And sometimes, but not all times, we have to get a student reactor operator in there, or we do because we want to give him time on the console, to run the facility for him. Those costs can be costed out. And they are a very small fraction. They are about two percent of the operating cost in the highest year of operation. If he was not there, if we decided tomorrow that for whatever reason, he was not to be permitted to use the reactor, we would save about two percent of the costs. We would also lose -- That two percent of the cost is something like $3,000, if I remember the calculation. We would also lose the services we get from him, the fees for the services we get from him of about $20,000. So the taxpayers of the State of California are out the difference, because they make up the difference in support for the facility.

1 That is it. Those are the costs devoted to that
2 service. Those are the only costs you can save, the only
3 costs you can avoid, if his activity is discontinued. And
4 it's simple demonstration. It is not contested by the other
5 side. The other side has never contested that.
6 The staffing has been the same all along. The
7 principal cost for the operation of that facility is the six-
8 person staff. We are talking about, depending on how you ac-
9 count for it, a 200,000 to 300,000-dollar annual yearly
10 operating cost made up -- As typically the case in a univer-
11 sity, about 75 percent of that is staffing cost. Maybe 60
12 percent of that is staffing cost. And the 60 percent is about
13 six people.
14 There is no way you can change the staffing pattern.
15 There's no other costs that would be affected by the discon-
16 tinuance of this activity. It's an innocuous imposition on
17 the facility. And that test is simple. And we are prepared
18 to go to the Board with that test, as we have briefed. And
19 I don't know why -- We are prepared to go into hearing on
20 that. And I don't know why we would have to do that.
21 If the Board wishes, within the time now and tomor-
22 row, I have some exhibits and can take the Board through the
23 relevant documents to see the hours -- which is really the
24 wrong argument. The hours are immaterial anyway under the
25 Code. The Code talks about costs devoted.

JUDGE FRYE: Well, we have got your motion. And I think perhaps the thing for us to do -- and the Staff's motion too on this subject -- is to get the remainder of CBG's response to that. And if we deny the motion, then obviously that would be appropriate. If we grant the motion, then it's moot.

Do you have anything you wanted to add?

MS. WOODHEAD: I would just like to ask a question. I was under the impression CBG had completed its response, that summary disposition was over.

JUDGE FRYE: Phase 1.

MS. WOODHEAD: Then I guess I really am confused. I thought that this pre-hearing conference was to address the second part of the bifurcated summary disposition procedure. But then when I got the Board's Order on summary disposition, on certain contentions, I thought summary disposition proceedings were over.

JUDGE FRYE: That's right.

MS. WOODHEAD: So I guess I will have to have an explanation.

JUDGE FRYE: Summary disposition is over on those motions that we denied. I mean, that's the end of it.

On the ones that we held in abeyance, we still have a decision to make.

In this case, on this particular one, we want to go

into Phase 2 of the summary disposition procedure.

MS. WOODHEAD: And could I ask what Phase 2 is to be exactly?

JUDGE FRYE: The rest of CBG's argument.

They have responded to the facts. Now, in fairness, we have to give them an opportunity to respond as to the law.

MS. WOODHEAD: Oh, I see, all right. Well, does this apply to the Staff and Applicant? We have not had a chance to respond to CBG's motion fully.

JUDGE FRYE: Did you move on this contention?

(Mr. Hirsch shook his head in the negative.)

JUDGE FRYE: They haven't moved on this contention.

MS. WOODHEAD: I understand that. I am just asking if Staff and Applicant are going to be provided --

JUDGE FRYE: Oh, yes.

MS. WOODHEAD: -- the opportunity to respond fully.

JUDGE FRYE: When we get to those contentions, yes, absolutely.

MS. WOODHEAD: All right.

MR. HIRSCH: To respond at hearing if we do it?

JUDGE FRYE: No, no, no. When we get through Phase 1, the evidentiary hearing on the shorthand "inherent safety" question, we will then pick up the motions for summary disposition on the remainder of the contentions. Okay? We

will decide whether it is necessary to go to hearing, based on what we have already got before us. If we decide that the facts do not appear to be in dispute as to a particular motion for summary disposition on a particular contention, we will then say, "As to your motion, Staff and UCLA, you put in your second part of the response," just as you now put in the second part of your response on this contention.

MR. HIRSCH: The party that has not had an opportunity to brief the law then has the opportunity.

JUDGE FRYE: That's right, has that opportunity to do it.

MR. HIRSCH: Might I inquire? In directing us to brief the law now on the second part of that summary disposition motion, the conclusion that can be reached by the Board is either to grant the Staff and Applicant's motions on summary disposition, saying it is indeed a research and educational reactor, or to deny them and go to hearing? Or is the option available to the Board to rule that indeed it is a commercial reactor on the papers?

JUDGE FRYE: I think all three are open, yes.

MR. HIRSCH: Okay.

JUDGE FRYE: You could respond that you could decide that it is a 103. You could decide that it is a 104. Or you could decide that you have to have a hearing to decide whether it is a 103 or a 104.

MR. CORMIER: Judge Frye, I just want to make clear that the University position is we would like to get that issue resolved --

JUDGE FRYE: I understand, yes.

MR. CORMIER: -- up or down or whatever, first, before we incur the expense of preparing for hearing on safety issues for a license we are not qualified to hold.

JUDGE FRYE: Well, I think we can get rid of this one. As soon as we get Mr. Hirsch's response, we can reach a decision. And if we decide we want to hear evidence on it, then we can put that down for May.

MR. CORMIER: When would the response be due?

JUDGE FRYE: That's the next question.

Mr. Hirsch, would you say two weeks?

MR. HIRSCH: We're checking.

Two weeks is fine.

JUDGE FRYE: Two weeks is fine. Good.

MR. HIRSCH: Just Frye, in our response do you wish us also to brief again the matter of what the consequences are, or to simply focus on what the legal requirement is as to your ruling as to which class?

JUDGE FRYE: I think it's pretty much in the record, although I would like -- after you get the chance to review the transcript, if you find something that you want to add to it, go ahead.

MR. HIRSCH: That is a problem for us, in that we don't get access to the transcript for about three months.

JUDGE FRYE: Three months?

MR. HIRSCH: It takes three months to get it to the LPDR. And I would hope that maybe there is some way that that could be expedited. I know that this is a problem that is faced in a number of proceedings.

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JUDGE FRYE: I don't know what we can do about the LPDR.

MR. HIRSCH: I have seen two solutions in reviewing other cases. One is that the Staff has at times been asked to arrange to have the transcript express mailed to the LPDR, which reduces that from three months down to about a week. And the other is that on occasions, as I understand, for long proceedings, it is possible for the Intervenor to borrow a copy.

JUDGE FRYE: Mr. Cormier, are you going to get your transcript in the morning for today's --

MR. CORMIER: I don't know. We didn't order one.

JUDGE FRYE: You didn't? The Staff will, I take it.

MS. WOODHEAD: I am not sure what the office arranged for. Sometimes we don't get one-day service.

MR. CORMIER: Mr. Hirsch would like the University to copy the page of the transcript that capture his remarks, I guess we would be willing to do that whenever we get our transcript. A simpler way, I didn't think the remarks were that extensive, if the Board really is going to consider what the consequences are of the various classes of license, then maybe they ought to be briefed, so all the parties can get them in a more detailed format.

JUDGE FRYE: That is a point, but that of course takes more time. You see if you respond -- well, I suppose

1 we could have you put in your brief and then give him an
2 opportunity to respond to it. Then I think we are talking
3 about a month.
4 MR. CORMIER: Yes, the University doesn't -- we
5 don't think it is an argument that we need to make at this
6 time. We have argued the class of license, the consequences
7 is something different. That, first of all, ought not to
8 influence the decision, technically. I mean, if we are not
9 properly classed, we are stuck with the consequences whatever
10 they may be. It is interesting to know what they are.
11 JUDGE FRYE: But if it is a distinction without
12 a difference, it is really moot, in a sense.
13 MR. CORMIER: There is at least once difference that
14 is not palatable to the University, and that is the licensing
15 fees assessed commercial facilities. The whole licensing
16 fees structure.
17 JUDGE FRYE: Okay, let's forget the differences, then.
18 And just go on and brief it. I think, in light of that, there
19 is no point in worrying about it.
20 MR. HIRSCH: Can we resolve the matter of the trans-
21 script more generally, that I think is a problem we are going
22 to have to come up face-to-face with when we get to the
23 evidentiary hearing as well.
24 JUDGE FRYE: We will see if there is any possibility
25 that we can get one to the public document room faster.

1 Now we got off the agenda slightly with that.
2 I think the next topic we had was the possibility of putting
3 on the various opposing witnesses, and I don't think there
4 is much point in discussing that at this point until we know
5 what their availability may be.
6 I don't know whether the parties have any particular
7 views on that as a general proposition or not.
8 MR. CORMIER: I guess probably the general proposi-
9 tion of the University on this single issue, on the maximum
10 credible accident, which we regard as a single topic, we would
11 like to be able to present our case together, and then let
12 the other parties present it together. I think it will make
13 more sense that way. But since that is a single topic, I
14 understood your suggestion to mean then that then you would
15 bring in the other parties before we went on to another topic.
16 Contention 6, for instance, which is --
17 JUDGE FRYE: But you are going to be presenting your
18 testimony on the overall issue.
19 MR. CORMIER: The maximum credible accident issue.
20 JUDGE FRYE: Right.
21 MR. CORMIER: The first-phase issue.
22 JUDGE FRYE: The first-phase issue, you present that
23 as one package.
24 MR. CORMIER: One unit.
25 JUDGE FRYE: Not on a contention by contention basis.

4

1 MR. HIRSCH: We just have one inquiry. Was the
2 Board requesting to know whether all parties had objections
3 to the direct, the receipt in direct, and the cross-examination
4 of witnesses occurring round table, or simply for the
5 rebuttal and surrebuttal? That would help us in our determin-
6 ation.
7 JUDGE FRYE: It could be either way, I would think.
8 And we didn't have -- we haven't any preconceived notions
9 about how it would be best to do it. Let me ask you this.
10 I am sure that Staff and UCLA will have their witnesses avail-
11 able during the hearing to assist, even though they may not
12 be testifying. I think that is Staff's normal practice; is
13 it not? And I think UCLA would probably do the same. Are
14 you planning to have -- I don't suppose you are planning to
15 have your witnesses here.
16 MR. HIRSCH: We have somewhat different financial
17 status than the other two parties. Witnesses who are local
18 and who are not absolutely tied to their job schedules may
19 be available. But the likelihood is that most of our witnesses
20 would be available only during part of the week.
21 MR. CORMIER: Judge Frye, I should correct another
22 misstatement. We cannot commit to having all of our staff
23 here during a two or three-week proceeding on topics, especially
24 when we are obviously contemplating other periods of time for
25 other issues. The NAL is a small facility with only a few

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technical staff members. And we have questions about whether they can be freed up for large chunks of time to sit in on the hearing. So I don't want to be committing to that now.

JUDGE FRYE: Perhaps then, in light of that as a general proposition, if we were going to put witnesses on in one panel, the rebuttal phase would be the best time to do it, after having gone through everybody's direct case. If we felt there was a need for that, we can take it up at that time.

The other topic I had was reliance on undisputed facts. I can say initially that I don't think these undisputed facts go very far. I am not sure whether anybody wants to rely upon them or not. Is there a desire to do that?

MR. CORMIER: If we find it useful as we prepare our testimony, we would intend to rely on them. Call to mind that the Board has already determined it to be undisputed that the '60 hazard analysis does say that its assumptions were arbitrary, does say that it had picked an implausible assumption. That type of thing we would rely on as being more or less dispositive.

JUDGE FRYE: But that is what it says, but not necessarily true.

MR. CORMIER: Sure. But in the absence of extrinsic evidence of what the author of that report would say, I think we are all stuck with that. I mean, it is fairly clear. And

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1 we would rely on that. And I can't think off hand of the other
2 ones, but we would expect to rely on any undisputed facts that
3 are in the record.
4 JUDGE FRYE: All right. Well, I think that at
5 the point where you are identifying your witnesses -- well,
6 perhaps that is not a good point. Certainly by the time the
7 direct testimony is filed in advance, I think it would be
8 appropriate to indicate any such reliance and the purpose for
9 which you are relying on a particular undisputed fact.
10 As to prepared testimony, I take it we have basically
11 got that now, with the exception of witnesses that perhaps
12 were not included -- whose affidavits were not included in
13 support of the motions for summary disposition. In other words,
14 I take it Mr. Hirsch that we have got basically your direct
15 testimony right now.
16 MR. HIRSCH: Basically. It will have be modified
17 if we have to replace certain witnesses because of time
18 availability. And it is going to have to be rewritten, if we
19 put people on as a panel, we will have to combine testimony.
20 The basic case, however, is presented in these definitions.
21 JUDGE FRYE: In your package now. And I would think
22 that to the extent that Mr. Ostrander is your witness, your
23 prepared testimony is in too.
24 MR. CORMIER: No, I don't think that is correct there,
25 Judge Frye. We will have some modifications to make. As you

1 are aware, we did not have any part or any portion of CBG's
2 case until they responded to the summary disposition motion.
3 They had never identified any of their experts or what they
4 were going to say until we saw that. Last summer, as you recall,
5 we asked for some supplementation of their discovery responses
6 specifically as to who their experts were and what they were
7 going to say. It was not forthcoming, ergo our motion for
8 summary disposition. And that was the first time we saw the
9 testimony or learned of who they were proposing as expert
10 witnesses. So we are looking at this for the first time,
11 essentially.
12 JUDGE FRYE: The staff, I take it, is in somewhat
13 the same position?
14 MS. WOODHEAD: That is true. The affidavits that
15 are filed with summary disposition will have to be revised
16 somewhat.
17 JUDGE FRYE: Some of those are fairly dated too,
18 I think, are they not? They were executed some time ago.
19 MS. WOODHEAD: Well, but nuclear physics hasn't
20 changed in one year.
21 JUDGE FRYE: Applications change.
22 MS. WOODHEAD: But that is only one small item.
23 The issue that we are going to litigate has to do with nuclear
24 phsyics. And our affidavits were directed toward one level
25 of presentation, and having the CBG's opposing affidavits we

will have to revise them and direct it toward another aspect of the science.

JUDGE FRYE: Okay, well, when -- I think we will need to probably take this up again when we talk about the scheduling. At that time I think we can talk about a schedule for submission of your prepared testimony in advance, and also an indication of what undisputed facts you intend to rely upon and why.

Let me ask, Ms. Naliboff, does Santa Monica have a direct case with respect to the contentions that we are going to hearing on?

MS. NALIBOFF: None of the issues in phase one, no.

JUDGE FRYE: None whatsoever? Okay. I take it you would plan to cross-examine some of the witnesses?

MS. NALIBOFF: That is right, once we see what the direct testimony is going to be.

JUDGE FRYE: All right. Well then the other matter that we had, which I think was Contention 17 which had to do with seismicity. Our thought there was that perhaps as to the basic issue of seismicity, the degree of siesmicity, if that is an appropriate way to say it, at the site, there didn't appear to be too much of a dispute, if any, among the parties. There may be a large dispute as to consequences. But as to the seismicity of the site, I gather that the parties were in pretty good agreement; is that correct?

I see Ms. Woodhead is nodding.

MS. WOODHEAD: I am sorry, it is an oral record.

Yes, I think as a matter of fact the Board could take official notice that California is a seismically active state, and there is really no way one could dispute that fact.

JUDGE FRYE: You did not, as I recall, disagree with any of Mr. Hirsch's facts on this particular --

MS. WOODHEAD: No. I believe I so indicated when I sent my citations.

JUDGE FRYE: Mr. Cormier, I think you did dispute a couple of them, two or three of them. But from looking over them I gather the dispute was not all that --

MR. CORMIER: It is not a substantial dispute. But CBG does introduce documents as far as purporting to claim the degree of -- the level, the Richter scale of the fault that is possible in certain paths, simply misstated their conclusion there. We don't disagree with the general conclusion that sure this is a very seismically active area. And of course, as you know, the Los Alamos study is based on an earthquake that is at least sufficient to collapse the building. I think that probably says it all. I don't think it is worth fine tuning that. But they do introduce documents for the same fault, for instance, in one case say that the fault is capable of, I think, a 7.5 Richter scale earthquake event. And in another case another document says it is 6.7.

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1 Well, right there, just on the face of the same document, you
2 have a dispute of the fact. It is not an undisputed fact.
3 It is not anything that we care about disputing, but it is
4 not an undisputed fact. So we object on that basis.
5 JUDGE FRYE: Is it possible that you and Mr. Hirsch
6 might be able to resolve those particular things? I don't
7 think they didn't -- when I looked at them, and from what you
8 are saying -- they didn't sound to me as if there are any
9 basic disagreements there.
10 MR. CORMIER: I am prepared to concede that they
11 are technical disagreements. However, I guess I would have
12 a problem if at some point later on Mr. Hirsch came in and
13 said "Look, we have already agreed, it is undisputed, that
14 this fault is capable of a 7.5 earthquake."
15 JUDGE FRYE: That is what I am talking about, if
16 you can agree on the capability of the fault.
17 MR. CORMIER: Yes, I think that 6.7 or whatever it
18 is is probably sufficient for our purposes. In any case the
19 Los Alamos study encompasses both situations, I believe. So
20 I don't think there is a problem there, and I suspect --
21 JUDGE FRYE: 6.7 is sufficient to collapse the
22 building?
23 MR. CORMIER: It is not a question of whether
24 6.7 is, it is the fact that the Los Alamos study already
25 assumes that. I suspect we are beyond 6.7, and maybe beyond

11

7, I don't know. It depends.

JUDGE FRYE: It sounds to me like there is no basic problem with regard to the degree of seismicity.

MR. HIRSCH: If I might respond. I didn't quite understand why the University objected to a couple of the statements, one of which is almost verbatim from the application. But I agree with Mr. Cormier that they don't seem to affect the basic agreement on the facts. Neither the University nor the Staff dispute fact 10, that a major earthquake could bring down the several story structure built atop the reactor building and crush the core; fact 11, the mechanical damage to the fuel, i.e. breaks in the cladding of the fuel could result form core crushing; and a number of other facts about crushing; and a final conclusion that earthquake-induced fission product release could cause doses in unrestricted areas of at least 10 rem to the thyroid.

It seems to me that the only dispute that remains for hearing is how much above 10 rem, if at all above10 rem the off-site doses would be.

JUDGE FRYE: In this one I didn't want to get into the consequences. I realize that there is a dispute as to the conseuqences, but --

MR. HIRSCH: Excuse me. On that neither the NRC Staff nor the University disputed fact 17,which says that earthquake-induced fission product release could cause doses

1 in unrestricted areas of at least 10 rem to the thyroid.
2 The only dispute is how much over 10 rem there might be.
3 MR. CORMIER: Judge Frye, maybe I can explain. In
4 those three statements of supposed undisputed fact that Mr.
5 Hirsch just mentioned, he used the word "could," implying is
6 it possible. And on that basis, sure, we would do not disagree.
7 And that is the problem with that. He hasn't assigned any
8 credible scenario with those particular facts. We are not
9 going to dispute that it is not possible for these events to
10 occur. And so in that regard, in that sense, they are undis-
11 puted. He is talking about possibilities. The University
12 is not going to argue possibilities.
13 JUDGE FRYE: Let's get back to -- get away from the
14 consequences and focus on the seismicity. Mr. Hirsch, do you
15 think there is any basic disagreement between you and the
16 University as to the magnitude of an earthquake possible?
17 MR. HIRSCH: It is hard for me to know if there is
18 a dispute with us and the University. I know that the Univer-
19 sity does not dispute the magnitude of a quake that is possible
20 on the Newport-Inglewood fault. The dispute seems to be about
21 the magnitude of the quake that could be possible on the Santa
22 Monica fault. I note that there seems to be a dispute about
23 what the probability of occurrence of a magnitude 7.5 is on
24 the Newport-Inglewood. As I read their responses, they don't
25 dispute the magnitude of response along the Inglewood fault,

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1 but do on Santa Monica, and dispute what the probability is
2 of the one on Newport-Inglewood. I don't know if I am reading
3 that right.
4 JUDGE FRYE: Is he reading it correctly?
5 MR. CORMIER: I believe he is, where we disagree
6 with him, yes.
7 JUDGE FRYE: Is this something you think you two
8 could reach an agreement on? Or is this a very basic difference?
9 MR. CORMIER: Yes. I think I could point out where
10 his--if you will pardon me, Dan -- his mistakes are in reading
11 these old documents.
12 JUDGE FRYE: Why don't you see if you two can come
13 up with an agreement with regard to the capabilities of the
14 faults, where you have disagreements, so we can avoid any
15 necessity for getting into that sort of hearing.
16 Now, I think that completes the matters that we
17 wanted to -- oh, does it? Yes, I think that completes the
18 matters we wanted to bring up. Do the parties have any matters
19 they want to bring up at this point?
20 MR. CORMIER: Yes. The University has two, Conten-
21 tion 20 and Contention 21. Maybe a housekeeping matter first.
22 I am wondering whether the parties have all received
23 and the Board the notices of appearance of CBG's counsel.
24 And if one was sent to me, I have not received it. And I
25 would like to get one sent to me, if that is possible.

1 MR. HIRSCH: We handed them out at the last hearing
2 conference. We would be pleased to send you one in the mail.
3 We will take care of that within a few days.
4 MR. BAY: I have got one on my desk in San Francisco.
5 And Dorothy?
6 MS. THOMPSON: No problem.
7 MR.CORMIER: I guess I still don't know whether
8 they are proceeding on all contentions or just Contention
9 20.
10 JUDGE FRYE: They were just on Contention 20 was
11 my understanding. Is that correct?
12 MR. CORMIER: That is what I thought.
13 MR. HIRSCH: At this stage, yes.
14 JUDGE FRYE: Is that it, or was there more to it?
15 MR. CORMIER: No, that was just a minor matter.
16 Now Contention 20 and 21.
17 MS. WOODHEAD: I am sorry I missed one bit of con-
18 versation. Are we talking about 20?
19 MR. CORMIER: I mentioned 20 and 21.
20 JUDGE FRYE: Did you have more on those?
21 MR. CORMIER: Oh, I wanted to talk about them.
22 JUDGE FRYE: Oh, I am sorry. I thought you were
23 through. Go right ahead.
24 MR. CORMIER: Staff's motion on Contention 20 has
25 been on the table for two years now. And I don't think we

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have made very much progress towards resolving that. We are still dealing with the question --well, it is a little confused -- the basic question was whether or not 10 CFR 73.60 applied to the University as an alternate or in addition to 10 CFR 76.67, which the University concedes does apply to the University.

Then some other issues have been thrown in that I think have confused the issues slightly and may need rebriefing by the parties. In particular, apparently at the last prehearing conference had a discussion about whether or not the University was required to check against sabotage. As the University understood that contention, we thought we were talking about protect against sabotage per 73.60. Since then we have had two pleadings by CBG, one in September and finally a supplemented pleading just this month that raised for the first time the applicability of 10 CFR 73.40. The point to be made by CBG that 73.40 itself requires the Applicant to protect against sabotage. Again I thinl we are confused on some syntax. And I think we need to look at that. The first point I want to make is that CBG's Contention 20 never mentioned 73.40. And therefore it has never been considered by the Universtiy, and the University does not believe the Staff has responded on 73.40 either. The reason I bring that up is because I think there is a very simple response to the applicability of 73.40.

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JUDGE FRYE: Maybe my book is out of order, but I don't see 73.40. Oh, I am sorry, I am in the wrong section. All right, so your point being that this is brand new?

MR. CORMIER: Yes, if we can look -- if you have your statement of contentions in front of you -- if you look at Contention 20, and this is an example of the frustration that the University, at least, is experiencing in dealing with these contentions. It states: "Applicant has in the past and is at present taking inadequate fixed site physical security precautions to protect against radiological sabotage," et cetera, "-- pursuant to 10 CFR 73.60 and 73.67."

Now, that phrase, "pursuant to 10 CRF 73.60 and 73.67" was inserted as a result of, I believe, the March 20, 1981 order of the Board disposing of matters at the prehearing conference of that previous February. It was inserted because University, at least, wanted to know what regulations CBG was purporting to apply to the University.

We said, "Fine, now we have got some specificty and some clarity." Now, a year and a half later, indeed almost two years later, we get a briefing on the applicability of 73.40. My first question is whether or not that is outside the scope of the proceeding. I have got a feeling that that is going to get us into a Donnybrook. I think there is a simpler answer, because I think 73.40 is explained very simply. But I don't know whether the Board wants to entertain

it now, or wants to do it by briefing of University or Staff, if Staff wishes --

JUDGE FRYE: Before you come in, necessarily, if you 73.40(b), it says "Each licensee subject to the requirements of 73.60 shall prepare a safeguard contingency plan," and so on.

MR. CORMIER: Agreed, if 73.60 applies.

JUDGE FRYE: So if 73.60 applies, then you are automatically going have to worry about 73.40.

MR. CORMIER: That is correct. But CBG is arguing that is an independent grounds for protetion against sabotage. You see, then, if that is the -- we don't need to address 73.40 now. The issue is whether 73.60 applies. Admittedly that triggered 73.40. We are in a circular argument if we are using 73.40 to suggest that 73.60 applies.

JUDGE FRYE: And I take it what you want to do is argue that point now? Or to file a response?

MR. CORMIER: Yes, CBG has not argued that 73.40(b) apples by virtue of 73.60. CBG doesn't need to argue that because University is prepared to stipulate that. If 73.60 applies to the University, there are several other things that follow. One of those being 73.40(b). The point being we were left at the last prehearing conference with the understanding that CBG was going to brief the applicability of 73.60, and confine itself to that. And somehow, amongst a bunch of

other factual things, we have gotten off on to a tangent. I would like somehow to be able to cut through that, for the simple reason that the University does not comply with 73.60, has never complied with 73.60, does not propose to comply to 73.60. And if it had to comply with 73.60, we would all probably go home. That is another threshold question we would like to resolve.

JUDGE FRYE: Now you have got us at somewhat of a disadvantage because I have not read, again, the motion for summary disposition on this contention or the responses. And of course CBG's response or supplement to its response has just come in recently.

MR. HIRSCH: Do you want to respond?

MR. BAY: I will respond on this point.

JUDGE FRYE: Oh, excuse me.

MR. BAY: I think the issue of the applicability of 73.60 versus 73.67 and the requirement of University to protect against sabotage have been fully briefed. They were initially put at issue by the summary judgment motion of the Staff, and which I might quote from on page 11. They assert that, "Intervenor's assertion that the licensee security plan must protect against sabotage is legally incorrect and should be dismissed." And so there have been two issues that have been before the Board, threshold issues in the security area. That is the theft protections essentially of 60 67, which one

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1 of those two will apply, and the requirement to protect against
2 sabotage at all. Section 73.40 is merely a general list of
3 physical protection, general requirements at fixed site. One
4 of those requirements is 73.40(a) which requires protection
5 against radiological sabotage. Another one is (b), which
6 sets forth a whole number of things that someone coming under
7 its terms must comply with. 73.40(a) stands independently
8 and gives a general requirement of radiological sabotage pro-
9 tection.
10 It is easily and clearly covered in Contention 20,
11 where we say that you have to protect against radiological
12 sabotage as well as protection against theft and diversion
13 under 73.60 or 67, whichever one may apply.
14 There has been little question from the very begin-
15 ning of this dispute with Staff's summary disposition motion.
16 It has been in the contemplation of the parties all along
17 that protection against sabotage and the requirement therefore
18 are at issue. I think the issue is fully briefed with our
19 supplemental brief after we got the documents through the
20 Freedom of Information request. And I think it is ripe now
21 for the Board to make that decision. I don't really see any
22 need for further briefing on this matter.
23 JUDGE FRYE: Ms. Woodhead, it is your motion we
24 are talking about. Do you have any views on this?
25 MS. WOODHEAD: That is right. I would point out

that the contention is limited to 73.60 and 73.67. They were the only issues raised by the contention. I agree with Mr. Bay that the issue is ripe for decision. It is fully briefed. The documents submitted speak for themselves. 73.40 as interpreted by Mr. Bay, Mr. Bay has incorrectly interpreted 73.40 to apply to all licensees. He did not point out the last phrase of Section 73.40(a) which says "Licensees shall comply with this section in accordance with security plans approved by the Nuclear Regulatory Commission." This does not mean that every licensee is subject to sabotage protection. That is a modifying phrase which indicates there are different security plans for different facilities.

JUDGE FRYE: Do you feel the issue of 73.40 is fully briefed at this point? Do I understand that correctly?

MS. WOODHEAD: I feel the issue raised by Contention 20 is fully briefed.

JUDGE FRYE: You don't think 73.40 was raised by Contention 20?

MS. WOODHEAD: It is not raised by Contention 20.

JUDGE FRYE: He says that the contention -- and it does say, that "Applicant has in the past and is at present taking inadequate fixed-site physical security precautions to protect against radiological sabotage, as well as protection against theft and diversion of special nuclear materials it possesses, pursuant to 73.60 and 73.67." So we seem to

have a semantic argument, whether 73.60 and 73.67 apply only to theft and diversion, or whether they also apply to ideological sabotage. And your motion, when you filed it went only to 73.60 and 73.67.

MS. WOODHEAD: My motion addressed the contention which included sabotage. And I propose that sabotage protection is not required for research reactors. And I explained why.

JUDGE FRYE: I thought so. I thought that is what I heard.

MR. BAY: Therefore the necessity and requirement of protecting against sabotage is clearly at issue in these proceedings. I would point out that one of the affiants for the Staff's summary disposition motion, Mr. Carlson, at a meeting on August 27, 1979 to discuss the impact safeguards upgrade rule on nonpower reactor licensees -- I believe Mr. Ostrander was one of the attendees at that meeting -- in response to questions about the applicability of sabotage protection, Mr. Carlson said, "What I might add, you have to protect against sabotage under the provisions of 73.40." Their own affiant has told that to nonpower reactor licensees.

I think on the record that has been briefed and is before the Board at this time that ample basis exists to make determination in your minds whether 73.40 applies or not.

JUDGE FRYE: You, Mr. Cormier, think that some more

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1 briefing on the 73.40 is necessary, I take it?

2 MR. CORMIER: Well, I agree it wasn't raised before.

3 I prefer it would be thrown out. The 73.40 is read by the

4 University the same way Staff represented a moment ago.

5 JUDGE FRYE: The point is, as Ms. Woodhead says,

6 that she has addressed the issue of the necessity to protect

7 against sabotage, which 73.40 speaks to. And CBG has responded

8 to her motion. So isn't the matter fully at issue at this

9 point? Why can't we just go on and decide it?

10 MR. CORMIER: That is fine. It think in the state

11 it is at now, it is in a very confused state. There have been

12 two changes in fuel inventory which somehow are treated dif-

13 ferently in the original response and in the supplemented res-

14 ponse. There is not confusion about the facts as to the inven-

15 tory. And then there is this additional confusion about 73.40,

16 which appears for the first time.

17 If the Board is prepared to rule on that, then fine.

18 We need a ruling on the applicability of 73.60 before we can

19 move any further on this.

20 JUDGE FRYE: Basically I think what you are telling

21 us is that you would like us to rule on this motion.

22 MR. CORMIER: I would like you to rule on it.

23 JUDGE FRYE: We will take it up as soon as we get

24 back. Now let me ask you this, while we have got this before

25 us, to what extent is this particular contention and hence

the motion interrelated with, say, Contention 13?

MR. HIRSCH: There have always been two aspects to Contention 20 -- our assertion that the University is taking inadequate protective measures against sabotage, and our assertion that it has taken inadequate protective measures against theft of the highly enriched uranium.

There are two remedies to that issue of the theft of the highly enriched uranium. One is to make it low-enriched, or to not grant the license for the HEU, so that ceases to be a threat.

JUDGE FRYE: In which case, this contention would then become moot.

MR. HIRSCH: The part dealing with theft.

JUDGE FRYE: The part dealing with theft.

MR. HIRSCH: Sabotage would remain.

And the other option is to improve the security, which is only necessary if they have HEU in terms of protecting against theft. The sabotage issue would be independent of Contention 13.

JUDGE FRYE: Well, we will take it up when we get back, and give you a ruling on the motion. If we feel we need further briefing on the motion, I will, of course, let you know by telephone, so you can file whatever may be necessary. But I take it that is what you basically are telling me, you want a ruling on this issue as promptly as possible.

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MR. CORMIER: We would like a ruling as promptly as possible. We, as I stated, don't comply with 73.60, and don't intend to take the measures to comply with that. And that would affect our decision on whether to proceed with the relicensing. And we think there really are some questions about what the regulations say. We think we understand what those say, because we deal with the Commission all the time. And we think others of the parties may not. And we need to get those -- I think there are legal issues in there, and I think we need to surface those, not factual ones.

JUDGE FRYE: Yes, I agree with you. I think there are legal issues involved in this. To the extent that there are factual issues involved in it, if we come should come to that conclusion after we have reviewed it, then we will try to put it down again for May, I suppose, and get an early resolution of those factual issues.

Any other matters?

MR. CORMIER: Contention 21. It is drifting somewhere in limbo.

JUDGE FRYE: That was the one, as I recall, you were completing discovery.

MR. HIRSCH: We were able to get the documents through the subpoena of the Fire Department a week or two ago. So the production of documents from the Fire Department is just completed. What remains is one set of interrogatories.

And our feeling at the moment at least, given the -- particularly if this is going to be heard in May -- and the emergency plan contention isn't going to come up until thereafter -- is to defer that set of interrogatories until it becomes appropriate. For example, the Board may rule there is very simply no need for emergency plan, if it is inherently safe, as the University contends. Then it wouldn't be worth the effort. We are prepared to do the interrogatories now if needed. But it seems more sensible to simply wait until we get closer to that stage.

JUDGE FRYE: Mr. Cormier?

MR. CORMIER: Judge Frye, we would like to have discovery completed on all the issues as soon as possible. We have had discovery for three years now, and it puts an unreasonable burden on the staff to have that hanging over everybody's heads

JUDGE FRYE: Your staff?

MR. CORMIER: Our staff, the technical staff.

JUDGE FRYE: Who are the interrogatories addressed to? Who would they be addressed to?

MR. HIRSCH: I assume they would be addressed to the University. We have a difficulty that half the documents are from the Fire Department, and half of them are from the University. But I assume that the interrogatories would go to the University.

JUDGE FRYE: Have you seen the Fire Department documents yet?

MR. HIRSCH: Only as of a few days ago, yes.

JUDGE FRYE: Well, do we have a motion -- we don't have a motion on that particular contention at this point, do we?

MS. WOODHEAD: Board deferred scheduling that for summary disposition because of discovery.

JUDGE FRYE: That is right. As I recall, the plan and the Staff's evaluation was filed last fall, was it not?

MS. WOODHEAD: The Staff's evaluation of it came out, I believe, in the fall, yes.

JUDGE FRYE: Is it your intent to file a motion on it?

MS. WOODHEAD: Yes, I am prepared to file a motion.

JUDGE FRYE: Well, it is up to you.

MS. WOODHEAD: I am ready now. I have been waiting for the Board to set a date.

JUDGE FRYE: Mr. Cormier, did you want to file a motion?

MR. CORMIER: We probably will file a summary disposition motion of our contention.

MR. HIRSCH: If the other parties are intending to, we think that our position could be resolved summarily.

JUDGE FRYE: You would be --

7

1 MR. HIRSCH: Given admissions the parties have
2 already made on other of our motions, those admissions would
3 dispose of the emergency plan issue as well. We will move
4 as well.
5 JUDGE FRYE: All right. Let me say, in order to
6 simplify this, can you all agree as to what the facts are
7 and file a stipulation? And then you can file your motions
8 as to what --
9 MR. HIRSCH: That hasn't worked very well in this
10 proceeding, Judge Frye.
11 JUDGE FRYE: I realize that it hasn't. But let's
12 make an attempt at it. If all of you feel that the thing
13 can be disposed of without hearing, it would seem to be what
14 you ought to be able to.
15 MR. HIRSCH: I think I misunderstood. We believe
16 that our contention could be summarily resolved in our favor.
17 JUDGE FRYE: I understand that. They think it can
18 be summarily resolved in their favor. Now, if you agree that
19 it can be summarily resolved, you must agree as to the facts.
20 MR. HIRSCH: No, I think we disagree as to the facts.
21 I mean -- how would I say it -- the University has already
22 stipulated to certain facts, as to whether they will again
23 I guess we should find out.
24 MR. CORMIER: Could we inquire what facts you are
25 talking about that are the basis for --

JUDGE FRYE: Let me say this. I gather, since everyone agrees that this is appropriate subject for summary disposition, that there cannot be very much dispute about what the underlying facts regarding this emergency plan situation may be, and your disagreement as to what legal conclusion ought to be drawn from those facts. Obviously I am hoping for too much.

MS. WOODHEAD: Excuse me, Judge Frye. The point of controversy between CBG and Staff and Applicant is the maximum credible accident. That changes the emergency plan.

JUDGE FRYE: I see, I see.

MR. HIRSCH: If I might explain that. The University initially submitted an emergency plan which was rejected by staff, citing a number of inadequacies. University redid its emergency plan, basically asserting that it need not have any emergency response plan for outside of the reactor room, because the maximum credible accident could not cause doses outside greater than 5 rem.

JUDGE FRYE: I see.

MR. HIRSCH: And so you can't resolve the matter of emergency plan until you resolve what the off-site consequences are.

JUDGE FRYE: I think that is probably true. Wouldn't you agree, Ms. Woodhead, until we have dealt with the maximum credible accident --

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MS. WOODHEAD: That is true.

JUDGE FRYE: -- we really can't deal with this?

MS. WOODHEAD: That is true.

JUDGE FRYE: Mr. Cormier?

MR. CORMIER: I agree, no disagreement on that. We would still like to -- is CBG saying that he doesn't need discovery? That is fine with us, we can terminate discovery.

JUDGE FRYE: He is simply saying that he doesn't want to address that issue at this point.

I would like, in light of the fact that the basic disagreement here revolves around the maximum credible accident, and that is a subject that is going to be the topic of phase one of the hearing, to let's put off any further consideration of Contention 21 until we have decided what the maximum credible accident is. Then we will pick it up. And at that time we will consider whether there is any need for discovery. In the meantime, no discovery, no further consideration of that contention.

1 JUDGE FRYE: It may be totally moot. It may not
2 be. We'll just have to wait and see.
3 MR. CORMIER: Are we saying that if the maximum
4 credible accident is as the University represents it to be,
5 which provides the basis for the emergency response plan,
6 then there will be no discovery?
7 JUDGE FRYE: No. No.
8 MR. CORMIER: No commitments?
9 JUDGE FRYE: I don't want to make any commitments
10 on it. I think we need to wait and see what the resolution
11 of that issue is and then we will take up the matter and
12 see where we stand.
13 MR. CORMIER: All right.
14 MS. WOODHEAD: Judge Frye, could I ask when you
15 would contemplate that summary disposition be completed in
16 terms of all the responses being in, number one, and number
17 two, when the Board intends to rule on the issues that are
18 corollary to safety and those issues which are not relevant
19 to safety, such as No. 1, which says the application is
20 deficient and No. 2, which challenges the class of license,
21 and No. 18, which is financial qualifications?
22 JUDGE FRYE: Two is the only one that we have
23 decided to take up so far. The rest of them are deferred
24 until we finish the evidentiary hearing on the Phase I now.
25 Mr. Cormier mentioned something about taking up

1 financial qualifications early. Let's see where we stand
2 on witness availability for Phase I and when we might be
3 able to get those hearings in.
4 In the event that we are going to have to defer
5 that for some time, perhaps we could pick up some of these
6 other issues earlier, and we'll then, if that's the case,
7 proceed to consider, for instance, the financial qualifica-
8 tions contention and make a ruling and either have further
9 responses on it or deny the motion for summary disposition.
10 At this point we've got two options on these
11 motions that have not yet been ruled on: we can treat them in the
12 same way that we have treated the ones that we have ruled
13 on and deny them because we find that they are factual
14 disputes. If we find that there are no factual disputes,
15 then we go into the second phase and we get responses on
16 the legal points from the opponents to the motion and then
17 we reach a decision on the motion, summarily disposing of
18 the issue.
19 MR. CORMIER: Judge Frye, could I suggest that, in
20 the interest of saving time on those nonsafety issues,
21 perhaps we ought to have them fully briefed as soon as
22 possible.
23 JUDGE FRYE: Well, I don't want to get into that
24 because if there are factual disputes underlying them, then
25 there is no point in having further briefing on them at

1 this stage.

2 The disputes as to facts which require a hearing

3 to resolve them, we're going to have to have a hearing,

4 and your briefing then will come in the form of proposed

5 findings and conclusions.

6 It's only if there are no disputes as to any

7 material fact that require a hearing for resolution --

8 MR. CORMIER: I understand.

9 JUDGE FRYE: -- that we get to the next step of

10 the briefing, and that, in essence, takes the place of the

11 proposed findings and conclusions and goes to the legal

12 consequences of these facts.

13 MR. CORMIER: I understand.

14 And the Board's next step would be to make a

15 determination whether there are disputed facts in these

16 other contentions?

17 JUDGE FRYE: After we finish Phase I.

18 MR. CORMIER: Well, that's what the University

19 has trouble with.

20 JUDGE FRYE: You want to take them up earlier?

21 MR. CROMIER: Yes. There are three or four

22 threshhold questions that if they go against the University,

23 we can all go home early.

24 JUDGE FRYE: Okay. Well, we've picked up one of

25 those.

MR. CORMIER: If we're not financial qualified, if the University of California is not financially qualified for $200,000-a-year facility, then we ought to all find out about that as soon as possible, it seems to us, because there's nothing we can do to change that.

JUDGE FRYE: Okay. Now what are they? We have the class of license --

MR. CORMIER: The class of license is the same way. We've applied for 104. We have no intent to apply for 103.

JUDGE FRYE: We're taking that one up.

MR. CORMIER: Okay.

JUDGE FRYE: Financial qualifications. Are there any others?

MR. CORMIER: Well, 73.60.

JUDGE FRYE: Yes, we're going to take that up too. That's security, Contention 20.

MR. CORMIER: That about does it.

As a housekeeping measure we would like to take up Contention 1 simply because we want to know whether we are going to be in a position of having to adduce proof on those matters that come under Contention 1.

We think most of them can be disposed of quite easily, though we would be prepared to concede that the one relating to what the Borax tests show clearly is related to the basic issue and that would hold over.

1 The rest of them seem to be the assertions that
2 there are material facts misstated in the application. They
3 ought to be able to be resolved fairly directly.
4 JUDGE FRYE: Okay.
5 MR. CORMIER: Nothing depends on that though,
6 other than our knowing what we have to prepare for in the
7 hearing. There would be no really adverse consequences to
8 us if that got deferred for some reason.
9 JUDGE FRYE: So basically, the three that you are
10 concerned about early resolution are class of license,
11 financial qualifications and security?
12 MR. CORMIER: Correct.
13 JUDGE FRYE: Security/sabotage, I suppose;
14 whatever.
15 All right. Let us take a -- well, before I do
16 that, are there any other matters aside from these that we
17 want to take up?
18 MR. HIRSCH: If I just might add, there seem to me
19 to be two other contentions, which if we are going to speed
20 things up, do not seem totally dependent upon your thresh-
21 hold finding on inherent safety. That's Contention No. 6,
22 about the normal emissions, which is unrelated to your
23 determination about accidents, and those parts of Contention
24 13 that deal with proliferation risks.
25 Again, as I see it, those are independent of your

1 finding on inherent safety or an aspect of inherent safety
2 unrelated to accidents.
3 JUDGE FRYE: What was the second one?
4 MR. HIRSCH: Thirteen, those aspects of 13 that
5 deal actually with -- at some point the part that deals with
6 criticality accidents is going to have to be addressed; I
7 don't know where that fits -- but at least the part dealing
8 with proliferation.
9 I'm wondering, it may be possible then for us to
10 schedule that second set of hearings even before the Board's
11 determination on the first set if made so that we have
12 enough time to know about prefile testimony and so forth,
13 because it seems like we've outlined five or six contentions
14 that may not be dependent upon that initial ruling.
15 JUDGE FRYE: Ms. Woodhead, is there anything you
16 wanted to add?
17 MS. WOODHEAD: No.
18 JUDGE FRYE: Okay. Let us take a short break for
19 about ten minutes and then we'll right back.
20 (Brief recess.)
21 JUDGE FRYE: Can we go back on the record, please.
22 Mr. Cormier, let me ask you with regard to the
23 contention on financial qualifications, do you perceive any
24 basic factual disagreements with CBG?
25 MR. CORMIER: No. I don't know what the latest

1 count is on the deficit of the State of California, which
2 seems to be the basic point Mr. Hirsch is making, but it's
3 certainly clear that we cannot guarantee our budget from
4 year to year.
5 The fact that we've been here for 50, 60, 80, 90 --
6 MS. HELWICK: One hundred.
7 MR. CORMIER: That's right, 100 years, and the
8 budget is year to year. That's a fact. I don't think that's
9 disputed.
10 I don't know what other facts we could introduce.
11 And my question is, if it was disputed then, is
12 to ask the Board what type of presentation they would expect
13 to receive.
14 JUDGE FRYE: Mr. Hirsch, what would a hearing
15 accomplish on that particular point?
16 MR. HIRSCH: I would like to preface it with a
17 comment if I may.
18 We have a number of contentions which have to do
19 with safety issues and a number of other issues. To us,
20 many of those contentions are resolvable. I've been kind
21 of surprised today to hear the University say, either take
22 it as it is or that's it.
23 On the financial qualifications, there are number
24 of things that the University can do to demonstrate
25 financial qualifications.

1 We've put before you evidence that the University
2 is considering consolating this reactor with two others.
3 We've put before you evidence that it's considered not cost
4 effective this particular facility, that it is perhaps a high
5 priority for budget cuts.
6 There are ways the University can make a showing,
7 not that the University will be funded, but that it gives
8 a high priority to funding this particular institution.
9 There can be assurances provided and we would expect that
10 that's the burden that the University should meet.
11 Obviously, the University cannot guarantee what
12 its entire budget going to be year to year, and that's not
13 the issue before this Board.
14 What I think is before the Board and apparently
15 needs to go to hearing if it can't be resolved summarily is,
16 in the face of the very tight budget situation the University
17 is in and in the face of the lack of need for that facility
18 -- and it's already been targeted as a likely target for
19 consolidation or other kinds of cuts -- some real statement
20 of commitment from the University that they really need
21 that facility for those 31 hours a year of education or
22 whatever and that they will put in the money that's required
23 to keep it safe.
24 That can be done in various fashions. The
25 regents, for example -- the regents themselves have never

1 addressed that issue to this Board. There has never been
2 a commitment from the regents or some statement of high
3 priority for funding.
4 So there are ways, in our view, that the University
5 can meet this burden, and basically what we put before the
6 Board as evidence is that at the same time the University
7 has been arguing that it's financially qualified, it's
8 actually viewed this particular facility as one that has
9 already undergone cuts and will under go more and perhaps
10 may not even -- they may not even want to keep it.
11 So in short, the burden we feel that the University
12 has is not to show that they are going to get x-number of
13 millions or billions of dollars from the legislature year
14 to year, but what kind of priority are they going to place
15 on allocating some of those monies to a particular facility
16 that is dwindling in usefulness.
17 JUDGE FRYE: Is it your position that there is a
18 certain minimal amount that's required?
19 MR. HIRSCH: Oh, yes. I mean, if you want a dollar
20 figure, that would take some doing. But we assert that the
21 facility -- the monies necessary to safely maintain and
22 operate this facility have not been in the past devoted,
23 and it looks like in the future, less and less funds will be,
24 largely because of the dwindling usefulness of the facility.
25 And because we're concerned about safety, we worry

1 that the lack of money put into such things as maintenance,
2 training, hiring of proper people, the adequate safety
3 features, can pose a very serious threat.
4 Given the apparent belief that the facility is
5 inherently safe, that implies that the University believes that
6 no matter how much they spend on it, nothing can happen.
7 Given our belief that it's not inherently safe, the
8 amount of money spent is very important, and that belief
9 that it doesn't matter how much money you give to maintenance
10 can be very dangerous.
11 If a dean of engineering believes that it doesn't
12 matter how much he cuts that budget, that the facility can't
13 hurt anyone, that could have very serious effects.
14 MR. CORMIER: Judge Frye --
15 JUDGE FRYE: I still -- I guess what I'm having
16 difficulty with is how we would go to hearing on any of this.
17 You know, it seems to me that from what has been
18 submitted and what you've said -- the financial situation of
19 the University is fairly well known -- I have a little
20 difficulty in trying to envision what we would accomplich by
21 having a hearing on the subject.
22 MR. HIRSCH: Well, I don't know how the Board
23 intends to make the ruling that's required of it, the
24 affirmative ruling that the University has affirmatively
25 shown that it has and will devote the finances necessary to

1 safely maintain and operate that facility. We feel that
2 that's necessary, that what is necessary is a commitment on
3 the part of the University that's clear and unquestioned,
4 and the documents we put before you contradict and call
5 into question the commitment of the officials of the
6 University to adequately give the monies necessary for that
7 facility.

8 JUDGE FRYE: Well, surely -- you've put in a
9 document that says that there's a recommendation that the
10 facility be consolidated with another facility and this
11 sort of thing, and that document raises the question of
12 whether it's cost effective in view of the number of
13 students involved in the program.

14 But how does that go to financial qualifications?
15 I mean, if the University decides that it isn't cost
16 effective and they want to consolidate it, well, they're
17 certainly perfectly free to do so.

18 MR. HIRSCH: If they view it low cost effective
19 and do not yet approve consolidation and instead cut back
20 the budget -- I mean, you know that's been happening with
21 the University; there are two-percent cuts, four-percent
22 cuts, across the board, deeper cuts into programs that have
23 fewer students and so forth -- then the issue becomes how
24 deeply the University is going to go into cutting the NEL
25 budget and how far you can go before it becomes a real

1 danger.

2 We could at hearing put in evidence showing that

3 over the past 23 years there have been periods where there

4 have been subtantial reductions in finances for the reactor

5 and that has had an affect on safety.

6 We can show further that the finances for that

7 particular reactor become far more shakey in recent years,

8 both because of the budgetary problems of the University

9 and because of the loss of usefulness of the facility, and

10 if we're right that there is a safety problem with that

11 facility, that it is not inherently safe, that you have to

12 really devote attention to it, then a lack of commitment on

13 the part of the University, evidenced by the past and

14 evidenced by the crisis that the University is in presently

15 and the determination that that facility is not a high

16 priority, it seems to me a strong case is made that the

17 University can't meet that burden of showing it's going to

18 safely maintain it.

19 JUDGE FRYE: So you would propose then to show

20 that they are not financially qualified based on the

21 inadequate funds devoted to the facility in past years?

22 MR. HIRSCH: And the crisis they face now and what

23 that looks like prospectively in terms of the future for a

24 facility of low usefulness.

25 Now I should say, however, that it is not our

burden to show that they are financially unqualified. It is the University's burden to show that they will take care of the finances of that facility.

We are prepared to put on an affirmative case if that's not so, but we think the University needs to put on an affirmative case, that it really will put the money in necessary to keep that place safe.

JUDGE LUEBKE: And I think Mr. Hirsch is adding that the consequences depend on our findings in Phase I.

MR. HIRSCH: I agree. I agree.

MR. CORMIER: Judge Frye --

JUDGE FRYE: Mr. Cormier, you want to add something to this?

MR. CORMIER: Yes. I disagree. Financial qualification provisions of the code are threshhold questions. They really apply to power reactors.

JUDGE FRYE: No, they don't.

MR. CORMIER: No, I don't mean they don't apply to us, but I mean, they're principally -- they apply to everybody.

JUDGE FRYE: No. No longer. They no longer apply to power reactors.

MR. CORMIER: Oh, I didn't know that. They have changed that?

MR. HIRSCH: Public utilities, I believe.

1 JUDGE FRYE: That's right.

2 MR. CORMIER: The University is only going to be
3 able to show that it has the budget it has. The other
4 concern Mr. Hirsch raises about the programatic decisions
5 we make, we're not going to introduce any evidence on that.
6 We reserve the right to make whatever programatic decisions
7 we decide from time to time are proper.

8 The questions about what is sufficient funds have
9 been devoted to the facility, that's a safety question, it's
10 not a financial question. It has nothing to do with the
11 financial qualifications --

12 JUDGE FRYE: The financial qualifications finding
13 is a safety finding. I think the theory behind is it, you
14 know, are there sufficient funds to keep the thing maintained
15 in a safe condition?

16 MR. CORMIER: But that's not the issue.

17 JUDGE FRYE: What's the issue?

18 MR. CORMIER: There are clearly sufficient funds.
19 The decision whether to commit those funds is made on our
20 evaluation of the safety of the proposed alteration or
21 correction or whatever. That's the safety issue. It's not
22 a question of there not being sufficient funds.

23 We may disagree about whether you ought to commit
24 these funds because we think that it's not required in the
25 interest of safety. Somebody else may think it's required

in the interest of safety, but it's not really a financial qualification issue. It's a question over the safety of the particular alteration or change or modification being proposed to consider.

JUDGE FRYE: Ms. Woodhead, did you want to add anything on this?

MS. WOODHEAD: I would agree with Mr. Cormier. It's a very simply issue. They either have a reasonable assurance of obtaining enough money to operate the reactor safely or they do not. It's no more than that. That's all the contention raises.

JUDGE FRYE: Let us take this one under advisement and put our ruling in the prehearing conference order.

We are, of course, moving ahead with Contention 2 on the class of license and we're going to address Contention 20 when we return on security and we'll let you know very promptly about this one on financial qualifications.

I'm inclined at this point to think that it's best to defer 6 and 13, Mr. Hirsch, to the extent that you indicated they might be candidates for early resolution pending, of course, the results of the witness availability and what-not on Phase I.

If that turns out to be deferred for a long period of time and we have a hiatus, perhaps we can take up some of these in advance.

Now how long do you think you need to get a feeling for witness availability and when we might be able to go to hearing in Phase I?

MS. WOODHEAD: I think I could tell you in two weeks, the maximum.

JUDGE FRYE: Two weeks.

Mr. Cormier, two weeks?

MR. CORMIER: Two weeks.

MR. HIRSCH: We were thinking of Monday.

JUDGE FRYE: Monday?

(Laughter.)

MR. HIRSCH: I'm not quite sure how we can even consider May if it's going to take two weeks before we can discuss May.

JUDGE PARIS: Well, we're only in February.

JUDGE FRYE: We're still in February.

MR. HIRSCH: End of February.

JUDGE FRYE: We're still in February, so that two weeks would give you --

MR. HIRSCH: Four weeks to prefile testimony if we get the very shortest time before hearing for prefiling. It's very tight.

We're prepared to discuss it Monday. If it's impossible before Monday, then we'll have to discuss it --

JUDGE LUEBKE: What is the staff's problem, the

1 contract?

2 MS. WOODHEAD: Yes, we don't have a present

3 contract that we know of with Brookhaven. I think we have

4 an ongoing contract with Los Alamos, and of course,

5 Mr. Hawley from Battelle is planning on coming.

6 It's not him. The problem is the staff's

7 allocation of work. They allocated UCLA testifying in

8 hearing for September, and we will have to get their

9 schedules rearranged in order to work on this.

10 JUDGE FRYE: Let me say, Mr. Hirsch, with regard

11 to prepared testimony, it seems to me there's no reason why

12 you couldn't go ahead with that in any event, to the extent

13 that you know who your witnesses are.

14 MR. HIRSCH: That is one of the problems. If

15 someone isn't available we have to find substitutes. We

16 can begin working on it but it will make a problem,

17 particularly if the Board determines that we go to hearing

18 early, not on this first six but on Contention 2 or some-

19 thing like that.

20 JUDGE FRYE: Well, two weeks would appear to be

21 about the earliest we're going to be able to get to it, so why

22 don't we schedule a conference call for two weeks from today

23 and see where we stand at that point.

24 That would be March 9. Shall I say 10:30 a.m.

25 Pacific time, which would put us at 1:30 Eastern time?

Is that an appropriate time, a convenient time?

MR. CORMIER: That would be fine.

JUDGE FRYE: Now the other question -- and I don't suppose in light of the development -- until we know what the developments are with the witnesses, there's probably not much we can do with it -- but the question of hearing space.

I don't know what the availability of this courtroom might be, and although we tried to take the students up on their offer of space at the University, we never received a response from them.

MR. HIRSCH: If you would like, I can inquire further. I'm surprised to hear about that.

JUDGE FRYE: Well, let's hold that one for just a second.

Is there any other matter we need to take up at this point?

(There was no response.)

JUDGE FRYE: Well, I think then that concludes this conference which we envision as the 2.752 conference prior to hearing, and we will issue a prehearing conference order promptly after return, and we look forward to talking to you on a conference call on March 9th.

So we are now adjourned.

(Whereupon, at 4:55 p.m. the prehearing conference in the above-entitled matter was adjourned.)

NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

U.S. NUCLEAR REGULATORY COMMISSION, ATOMIC SAFETY AND LICENSING BOARD

in the matter of:

Date of Proceeding: February 23, 1983

Docket Number: 50-142-OL

Place of Proceeding: Los Angeles, California

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

Dennis L. Pebworth

Official Reporter (Typed)

Dennis L. Pebworth

Official Reporter (Signature)