

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: U.S. Nuclear Regulatory Commission
Incident Investigation Team

Title: Investigative Interview of:
JIM CONRAN

Docket No.

LOCATION: Bethesda, Maryland

DATE: Saturday, August 30, 1991

PAGES: 1

ANN RILEY & ASSOCIATES, LTD.

1612 K St. N.W., Suite 300

Washington, D.C. 20006

(202) 293-3950

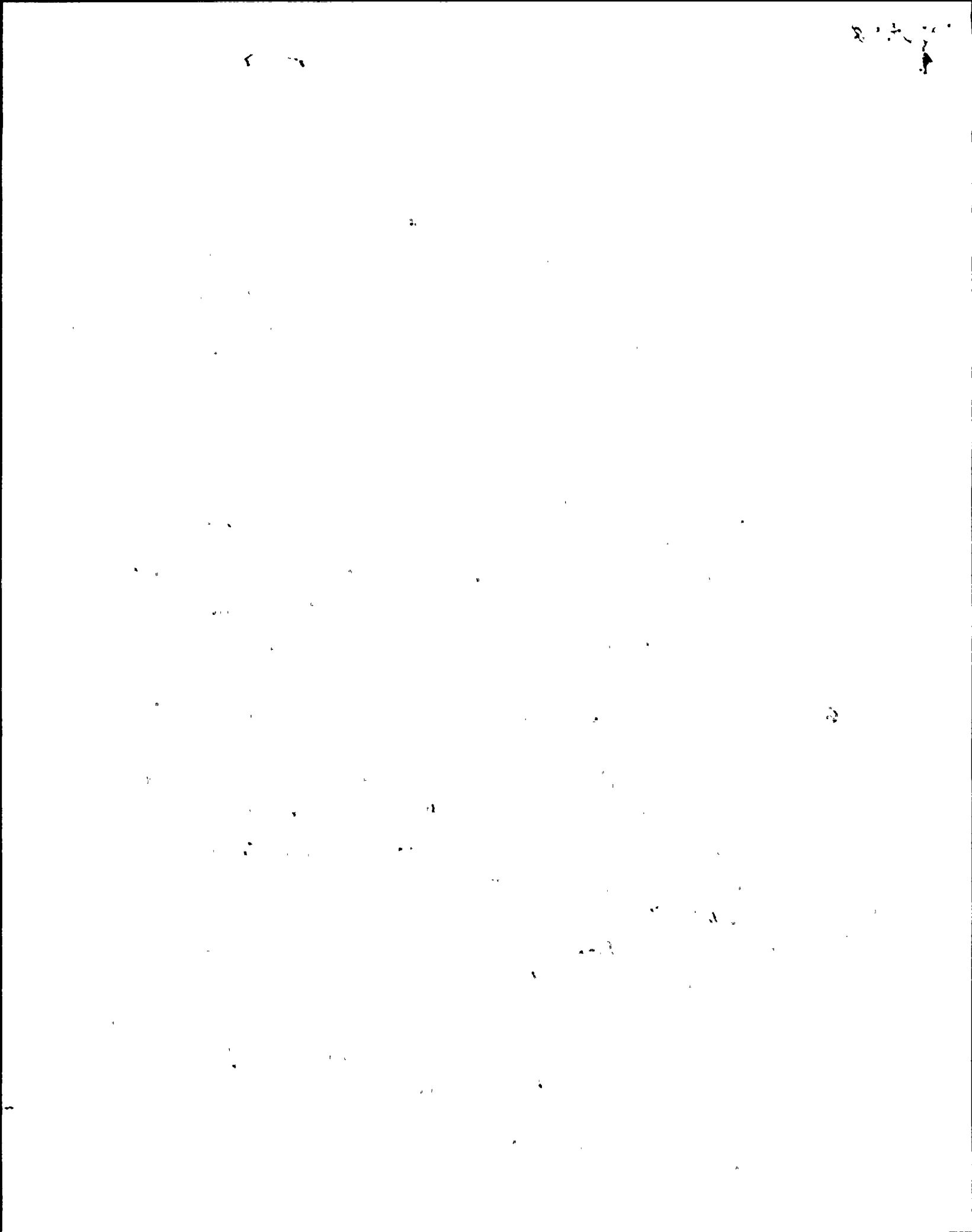
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ADDENDUM

Page	Line	Correction and Reason for Correction
2	14 & 15	"I work in The Director of AEP's office as staff of The Committee to Renew Generic Requirements (CRGR)" Reason: Clarification
3	2	Change "out" to "on" Reason: Clarification/Editorial
4	17	Change the words "the ones at" to "no undue" Reason: Clarification
5	10	Insert the word "such" between the words "generally" and "licensees" Reason: Clarification
6	6	Add the words "to consider the issue" at the end of the sentence Reason: Clarification
9	20	Change the word "really" to "necessarily"
10	17	Emphasize the word "used" by underlining or quotation marks Reason: To make clearer the distinction in trying to make between simply using certain equipment to perform safety functions and relying (by design) on certain equipment to perform safety functions.
10	22	Emphasize the word "used" by underlining or quotation marks (Same reason as above)
10	24	Add the words "be safety grade" after the word equipment. Also delete the words "that" and "turned around and"
17	1	Change the word "used" to relied on "truly relied on" Reason: Necessary changes to
17	3	Delete the words "It was still enough that if" Reason for changes Page 10, Line 24 through Page 17, Line 3: Necessary to understand the important point being made
20	17	Delete the words "its not for" and
20	18	Delete the period after "easy", and change "its" to "is". Reason: Necessary to understand the point being made.

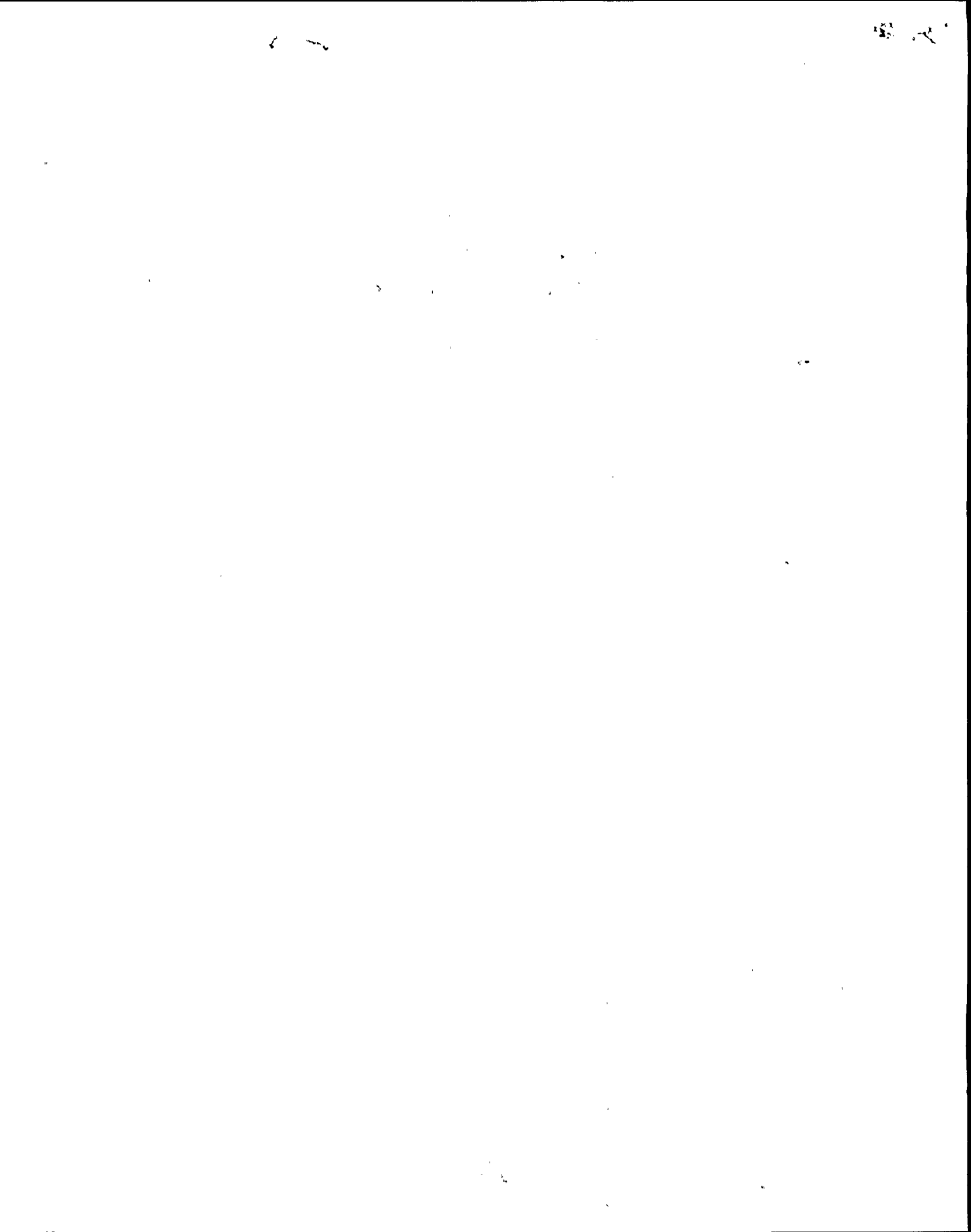
Date 9/24/91 Signature James H. Gorman



ADDENDUM

<u>Page</u>	<u>Line</u>	<u>Correction and Reason for Correction</u>
27	1	change the word "fact" to "effect" and
27	2	change the change to word "see" to "safety"
Reason: for changes above: Clarification		
27	4	Insert the word "no" between the words "of" and "undue"
Reason: word omitted in transcript		

Date 9/29/91 Signature James H. Gunn



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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
INCIDENT INVESTIGATION TEAM

INTERVIEW OF)
)
BOB CONRAN)

Nuclear Regulatory Commission
The Woodmont Building
8120 Woodmont Avenue
Bethesda, Maryland

Friday, August 30, 1991

The above-entitled interview convened, pursuant to
notice, in closed session at 4:08 p.m.

PARTICIPANTS:

JOHN KAUFFMAN, NRC/IIT Team
WALTER JENSEN, NRC/IIT Team

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P R O C E E D I N G S

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MR. KAUFFMAN: Good afternoon. It's August 30th 1991 and it's about seven minutes after 4:00 in the afternoon.

We are in the Woodmont Building, Bethesda, Maryland. We are going to conduct an interview of Jim Conran and the interview is part of the Nine Point Unit 2 NRC Incident Investigation Team, of the events that occurred there on August 13th 1991.

I'm John Kauffman with NRC AEOD.

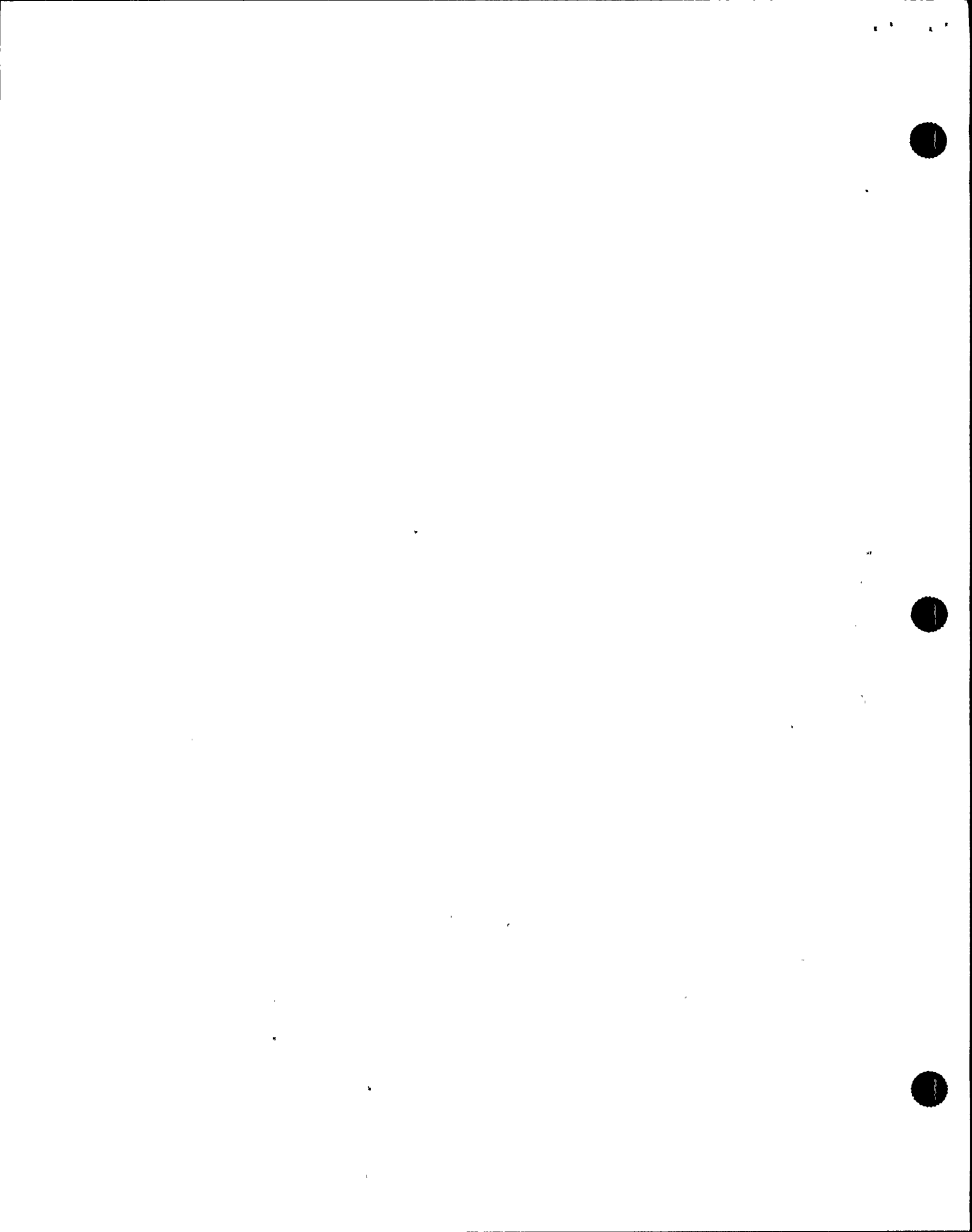
MR. JENSEN: I'm Walter Jensen, NRC, Events Assessments Branch.

MR. CONRAN: I'm James H. Conran. I'm with the AEOD staff. I work in the director AEOD's office as CRGR of the staff for the committee to review generic requirements.

MR. KAUFFMAN: Jim, can you tell us a little bit about your prior work experience, what kind of things you've been involved in, and maybe touch on your educational background?

MR. CONRAN: I have a bachelor of science degree in physics and 24 years now with the agency, starting with AEC in Albuquerque.

I've been at headquarters since 1973, several years with the ACRS staff, also worked in the safeguards organization for a couple of years.



1 The relevant experience for this inquiry I suppose
2 is the experience as a project manager in NRR, working out
3 standard balance of plant designs.

4 I served on the lessons learned task force after
5 TMI-2. Following that I worked in the division of systems
6 integration on the systems interaction issue, and in that
7 context, because of that experience, served as the staff's
8 witness in the TMI hearing and at the Shoreham hearing on
9 the subject of safety classification and systems
10 interaction.

11 For the last eight years I've been on -- almost
12 eight years -- I've been on the staff of the committee to
13 review generic requirements.

14 MR. JENSEN: Jim, shortly after TMI, there was an
15 issue of classification of safety equipment and importance
16 to safety and safety-related and not related to safety.

17 Can you describe your efforts in that behalf?

18 MR. CONRAN: The contention that I addressed in
19 the Three Mile hearing was a UCS contention that all
20 structure systems and coordinates that are used in
21 responding to an accident, specifically the TMI-2 accident,
22 should be made safety grade.

23 Safety grade means that they are dedicated to the
24 safety function involved and meet very strict requirements
25 of quality, resistance to earthquakes and that sort of



1 thing.

2 The testimony that I developed for the Three Mile
3 hearing defined the terms safety-related, important to
4 safety and safety-grade and then proceeded to argue that all
5 of the equipment that was used to respond in the Three Mile
6 accident didn't have to be safety grade or the equipment
7 safety classification, safety related.

8 All the equipment that was relied on, that is that
9 had design purpose to address design basis accidents, has to
10 be classified and qualified as safety related.

11 There is -- In the NRC's regulations, there is
12 definition of a safety classification called important to
13 safety that is larger than and includes safety related.

14 It's defined in the introduction to the general
15 design criteria and basically the important to safety
16 structure system components are those required to provide
17 reasonable assurance of the ones at risk in the operation of
18 the plant.

19 That's as contrasted to the safety-related system
20 structures and components which are defined as those needed
21 to provide well defined safety functions.

22 For example, to shut the reactor down and keep it
23 shut down, to maintain the integrity of the primary coolant
24 boundary and to limit the consequences of an accident to
25 less than the limits that are given in the regulations.



1 MR. JENSEN: Do you feel that these definitions
2 are fairly well defined in the regulations?

3 MR. CONRAN: There's a great deal of lack of
4 uniformity, I think, in the understanding of the meaning and
5 the implications of the term important to safety.

6 There is a general characterization, there are a
7 number of licensees -- from experience, I'm aware that there
8 are a number of licensees that regard important to safety
9 classification to be equivalent to or the same as safety-
10 related and generally licensees will argue or be of the view
11 that NRC's regulatory purview is limited to that category of
12 structure systems and components that we in NRC refer to as
13 safety-related.

14 This difference of understanding has been elevated
15 even to the Commission level and the Commission has finally
16 given a determination that in fact important to safety
17 category is bigger than and includes the safety-related
18 category.

19 MR. JENSEN: You say the commission has given --
20 Do you have a reference?

21 MR. CONRAN: Yes, I have an SRM that I brought
22 with me today where the Commission states that.

23 The context was that this issue became
24 sufficiently important and visible following the Shoreham
25 hearing that the Commission was involved in the decision of



1 at least that part of it.

2 The licensee involved and the law firm involved in
3 the Shoreham application hearing were instrumental in
4 forming the group that petitioned the Commission to make a
5 decision that important to safety was the same as safety-
6 related and so the Commission did agree.

7 The staff did a lot of work and the Commission
8 considered the question, among many other related questions.

9 There is really only a clear pronouncement I think
10 on the issue of whether or not important to safety is the
11 same as safety-related.

12 We haven't gone a great deal farther in clarifying
13 exactly what is important to safety and exactly what is the
14 regulatory status of things that are important to safety but
15 not safety-related and generally clarifying the subject so
16 that all licensees and all staff are in close agreement in
17 their understanding of these terms and their applications.

18 MR. JENSEN: Could you give us the name and date
19 of the SRM, just so we have it in our notes?

20 MR. CONRAN: The SRM I'm referring to is staff
21 requirements memo on SECY85-119, issuance of proposed rule
22 on the important to safety issue, dated December 21 1985.

23 The Commission pronouncement that I was referring
24 to is -- I quote -- concerning the ITS, important to
25 safety, definition, safety-related is a subset of ITS.



3

4



1 MR. JENSEN: What types of review should the NRC
2 staff have for items that are important to safety? Do we
3 have authority to review and approve this type of thing or
4 should the staff only look at safety-related equipment?

5 MR. CONRAN: Our regulations clearly refer to
6 structure systems and components that are outside safety-
7 related category.

8 In fact, general design criteria supplemented by
9 the standard review plan and numerous reg guides provide
10 regulatory requirements and guidance, further guidance, on
11 what is appropriate with regard to design requirements and
12 staff review criteria for important to safety but not
13 safety-related structure systems and components.

14 MR. JENSEN: You had said that some licensees
15 maybe feel that the staff should not be reviewing equipment
16 as important to safety and only look at safety grade
17 equipment.

18 Would Niagara Mohawk be one of the licensees that
19 would not want the staff to look at important to safety?

20 MR. CONRAN: I don't have any knowledge whether or
21 not Niagara Mohawk, how they feel on that question. That
22 was a general observation that comes out of experience of
23 the interactions between industry representatives and
24 Commission staff, and even the Commission in the past.

25 I didn't mean to imply, incidentally, by my



1 comments that licensees don't have any regard for the safety
2 significance of things outside the safety-related category,
3 but the struggles over this issue in the past have largely
4 been of a legal sense, what are licensees legally required
5 to do in these areas.

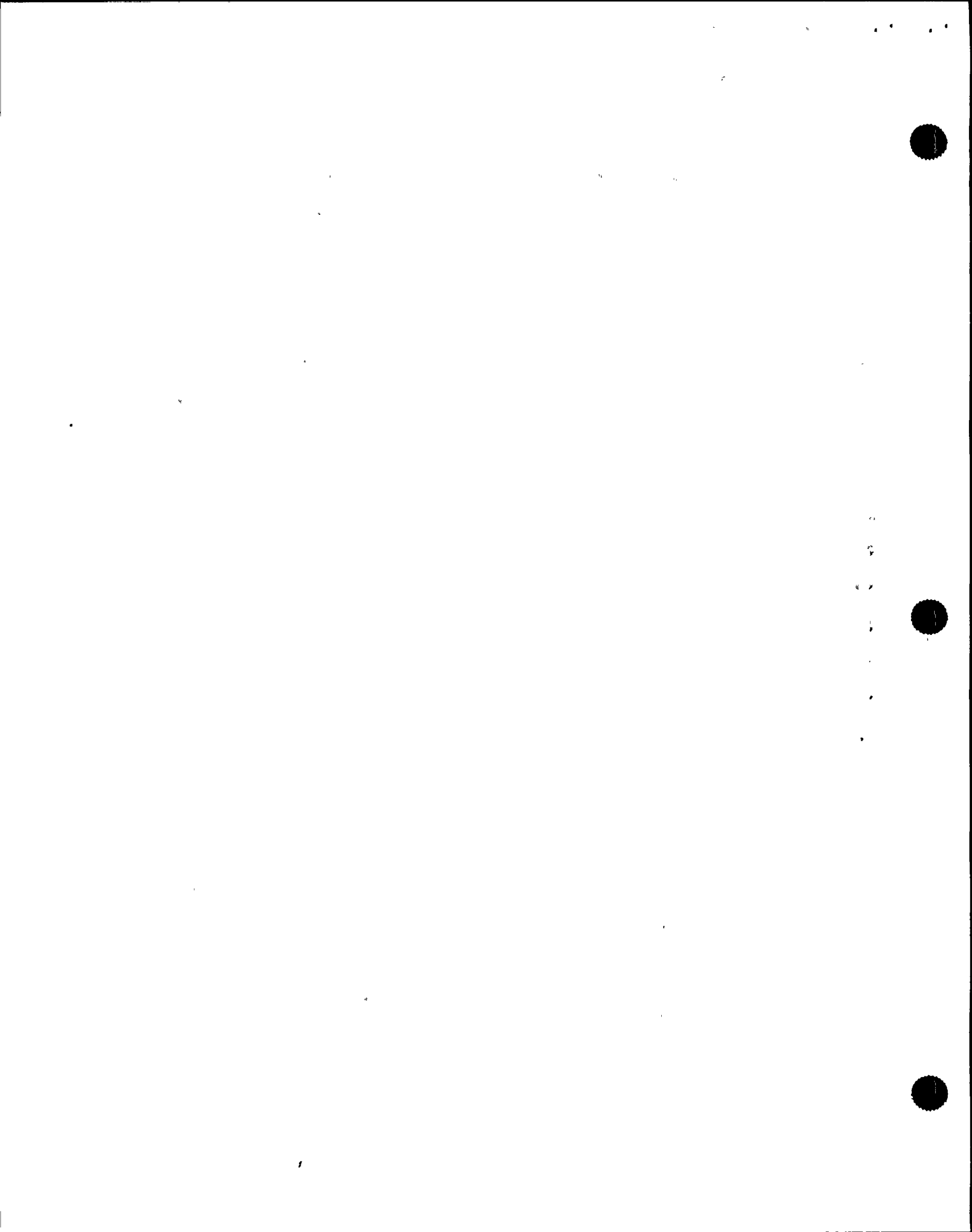
6 That certainly doesn't mean that licensees might
7 not go beyond what is legally required by regulation.

8 MR. JENSEN: Do you know of any attempt to
9 discourage the NRC staff from reviewing equipment that's
10 important to safety?

11 MR. CONRAN: On a current basis, I don't. That
12 question I think was probably more relevant eight or ten
13 years ago, when for example inspectors would say that some
14 licensees would try to prohibit inspector access or
15 inspection of important to safety but not safety-related
16 equipment, balance of plant equipment.

17 I think we are probably past -- I think we are
18 probably past the point where that's a big problem these
19 days. I think licensees would no longer -- most licensees
20 would no longer try to interfere with inspectors' efforts to
21 examine balance of plant, inspect balance of plant, but it
22 has happened in the past.

23 It's one of the issues that came to the surface
24 when we were arguing this issue in the TMI and the Shoreham
25 context.



1 MR. JENSEN: Is there any difference in the
2 quality of electrical power that's required for equipment
3 that's important to safety compared to safety-related
4 equipment?

5 MR. CONRAN: I think generally there is, yes. My
6 understanding is that safety-related power supplies, for
7 example, would have features of redundancy and diversity
8 whereas important to safety but not safety-related equipment
9 might very well not, or would not be required to at any
10 rate.

11 There are differences, for example, with regard to
12 vulnerability to design basis earthquakes. Safety-related
13 equipment should be able to function following a design
14 basis earthquake. There's not that kind of requirement on
15 important to safety.

16 That's a very awkward phrase. Is there something
17 I could substitute for that? It's important to always say
18 that because the tendency is to say, well, there's important
19 to safety equipment and there's safety-related equipment as
20 through they are different things. They are not really.

21 MR. JENSEN: But the requirements that they would
22 have, for example whether they should have class 1-E power,
23 wouldn't they be different for safety-related and important
24 to safety equipment?

25 MR. CONRAN: Yes.



1 MR. JENSEN: There have been several events in the
2 past where control room instrumentation has been lost and
3 caused difficulties to the operator, events at Rancho Seco
4 and Beaver Valley and the recent event at Nine Mile Point
5 Unite 2 where control room instrumentation was lost.

6 Is the NRC reviewing its position on the power
7 supply that would be required for this equipment?

8 MR. CONRAN: I'm sorry, I didn't understand.

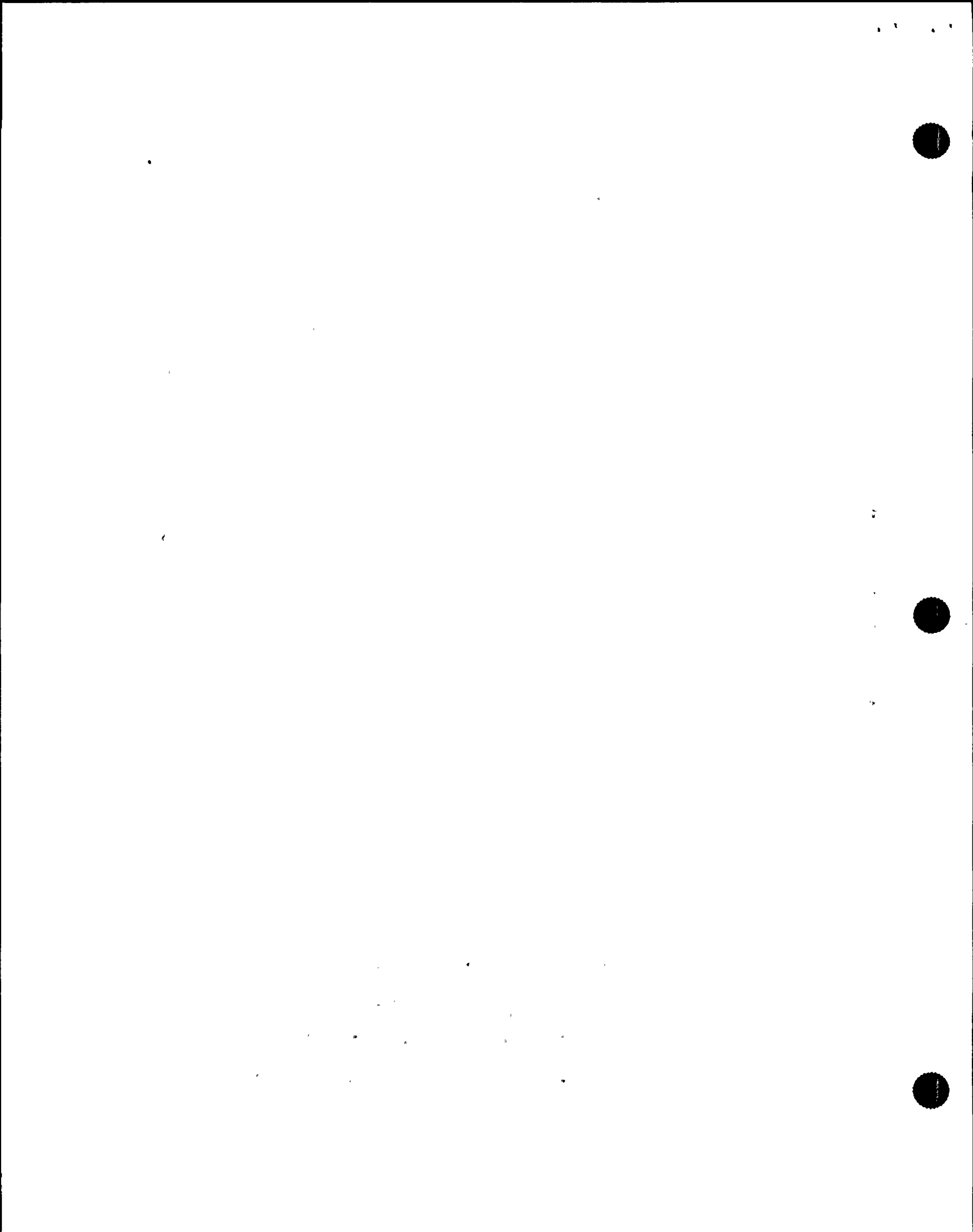
9 MR. JENSEN: Okay, I'll try --

10 MR. CONRAN: Did you say is NRC reviewing their
11 position?

12 MR. JENSEN: Right. Should we be looking at
13 upgrading the power supplies for control room
14 instrumentation. Given that it's been lost in several
15 events in the past and caused confusion to the operators,
16 should we consider or are we considering upgrading the
17 requirements to have this equipment powered by vital power?

18 MR. CONRAN: Well, I was of the impression that we
19 have reacted to incidents in the past where there was a need
20 to do that. In other words, there was a very large effort
21 after the TMI accident to reexamine the question of control
22 room design, including instrumentation. I'm not aware of a
23 current effort to do that. It would be appropriate to look
24 at that question following an event like Nine Mile.

25 MR. JENSEN: Have you done any additional review



1 or consideration as a result of the Nine Mile 2 event? Have
2 you been involved in any staff analysis?

3 MR. CONRAN: No, not at all.

4 MR. JENSEN: What about in the review of the
5 instrumentation in Reg Guide 1.97 for post-accident
6 monitoring?

7 MR. CONRAN: You mean have I ever been cognizant
8 in the review of -- No. I'm generally aware that there is a
9 category of equipment like that and it was defined and
10 specifications made of it in the aftermath of the TMI
11 accident.

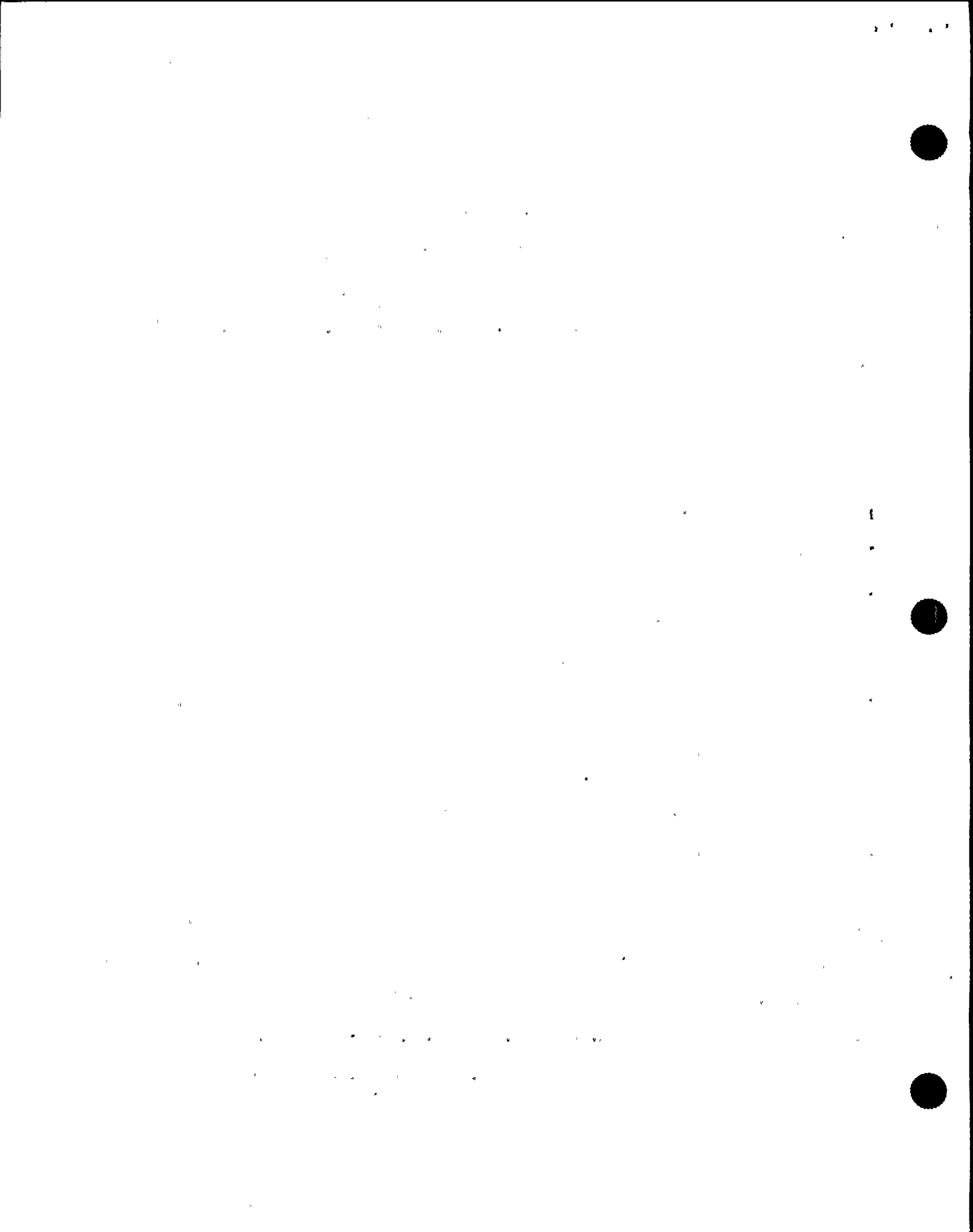
12 MR. JENSEN: But you weren't directly involved in
13 the review of what equipment should be on the list?

14 MR. CONRAN: No, I think not in the way that you
15 mean. I was involved in conversations about whether or not
16 all of that equipment was safety grade, for example, and it
17 did not have to be.

18 MR. JENSEN: What about control room
19 instrumentation at the power plants? Would you consider
20 that to be safety-related or not safety-related.

21 MR. CONRAN: I think all of it is not. That
22 instrumentation that is relied on to respond to design basis
23 events would have to be safety-related.

24 MR. JENSEN: Would the other equipment be
25 important to safety or not important to safety?



1 MR. CONRAN: I think it would be important to
2 safety but not safety-related.

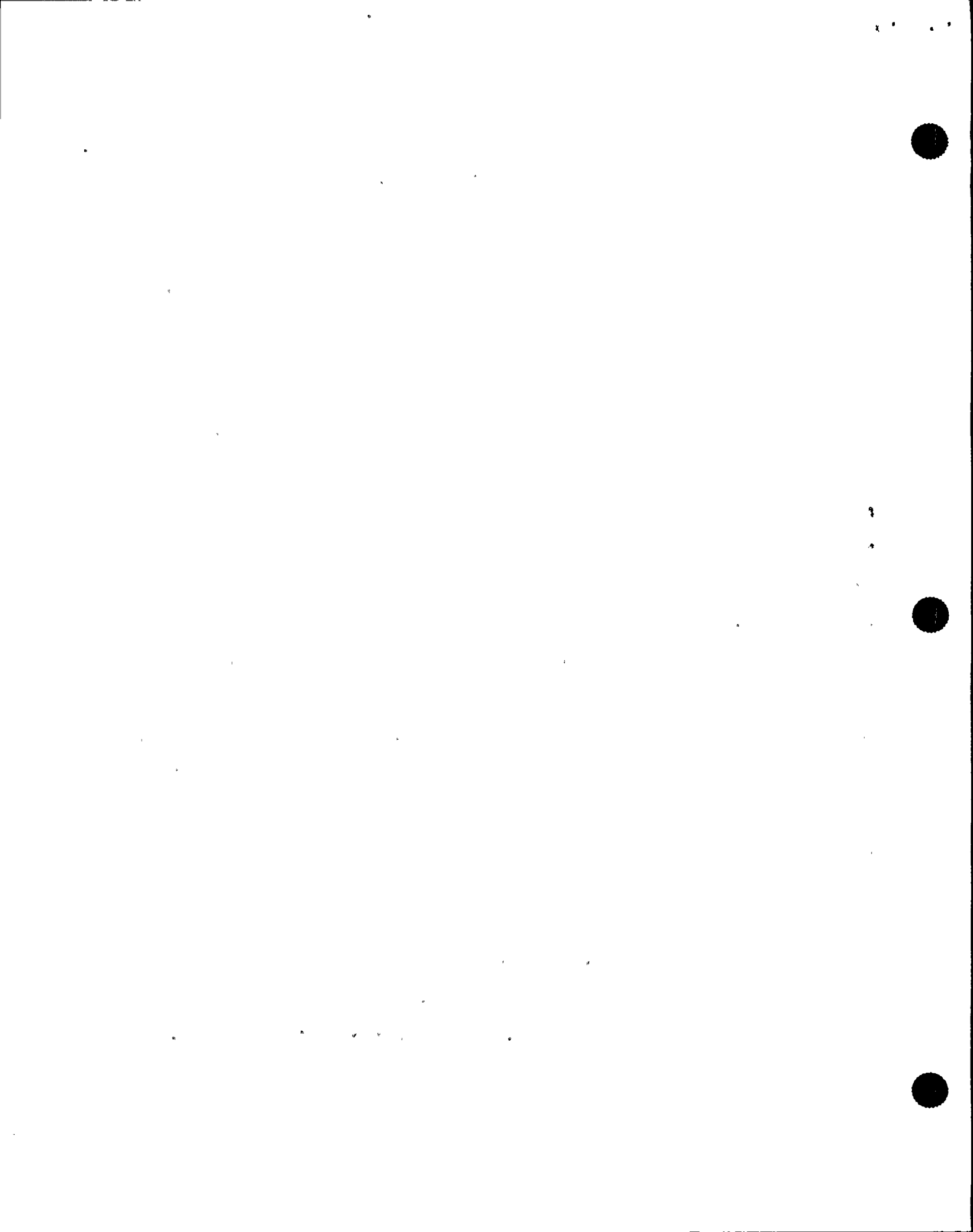
3 MR. JENSEN: Okay. What about in particular rod
4 position indication, instrumentation that would sense
5 whether the control rods were inserted in the core or not?

6 MR. CONRAN: I believe that falls in the category
7 of important to safety but not safety-related. It's
8 addressed in regulatory guidance but it's not the kind of
9 instrumentation that has to be safety-related.

10 MR. KAUFFMAN: You're talking about the
11 requirements. Do you think those requirements are
12 reasonable?

13 MR. CONRAN: I don't have a reason to question
14 them. I think if there is any consequence, adverse
15 consequences, that flow from that it's because for example a
16 licensee might consider that if something is not safety-
17 related it can fairly well be forgotten or it doesn't have
18 to have much emphasis, much maintenance emphasis, much
19 safety emphasis. I think there is some residuum of that
20 feeling.

21 If problems arise because -- I think what's
22 significant is that some of the control room equipment is
23 not classified as safety-related but that the equipment that
24 is important to safety but not safety-related is thought of
25 and maintained in a way that is not commensurate with its



1 degree of importance to safety.

2 That concept is important in NRC's regulations,
3 that for equipment that is important to safety should be
4 given attention and designed and maintenance and operation
5 to a degree that is commensurate with its importance to the
6 overall safety of the system.

7 MR. KAUFFMAN: So something important to safety,
8 you would expect to have the APM program where they follow
9 the recommendations?

10 MR. CONRAN: Exactly, would have maintenance,
11 would have quality assurance, it would be addressed in the
12 quality assurance program in some way but it would not have
13 the gold-plated, for example appendix B program.

14 MR. KAUFFMAN: And it wouldn't necessarily test
15 and surveil it?

16 MR. CONRAN: Oh, I don't think you necessarily
17 give away testing and surveillance because it was not
18 safety-related. Control rod indication is a pretty
19 important function.

20 MR. KAUFFMAN: If I told you I had an event where
21 a piece of equipment that was not safety-related, I'm not
22 quite certain whether it was important to safety or totally
23 nonsafety-related, that that failed and caused me to lose
24 all rod position indication, would you consider that
25 important?



1 MR. CONRAN: Yes. Our criteria in fact for
2 deciding safety classification category and what ought to be
3 done include considerations like is it relied on to perform
4 a safety-related function as identified in the regulations,
5 the several that I mentioned, can its failure degrade or
6 prevent the performance of one of the safety-related
7 functions, and I think that's what you're talking about.

8 MR. KAUFFMAN: Okay. For example, if I had rod
9 position indication that was on AC electrical source with a
10 backup battery and automatic swap-over to another AC source,
11 that would be a reasonable thing for me to do for an ITS
12 class component?

13 MR. CONRAN: Yes.

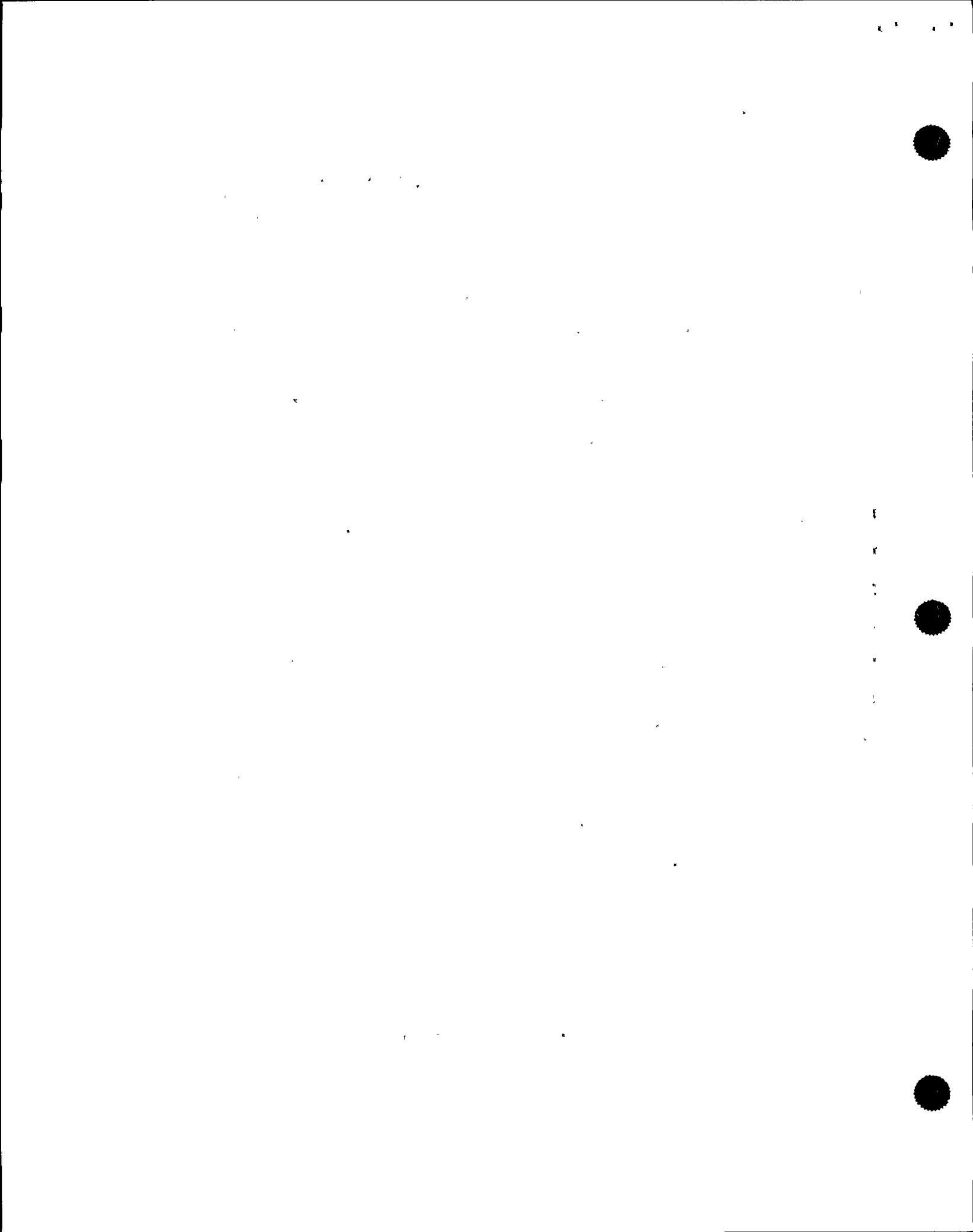
14 MR. JENSEN: What about neutron monitoring
15 equipment, the BWR, the average power range monitors and the
16 intermediate range monitors, should they be considered
17 safety-related or important to safety or not safety-related
18 or not important to safety?

19 MR. CONRAN: Well, let's see. Are they relied on
20 to shut down the reactor and keep it shut down?

21 MR. JENSEN: Yes.

22 MR. KAUFFMAN: They don't shut it down but they
23 let you know if it is or not.

24 MR. CONRAN: My reaction would be that they would
25 probably be safety-related.



1 MR. JENSEN: What about the indication in the
2 control room from these instruments? I didn't really mean
3 the safety functions of those rods in the core but the
4 instrumentation in the control room that the operator would
5 see to monitor the neutron level, should that be safety-
6 related?

7 MR. CONRAN: Well, not quite so directly relatable
8 but I think insofar as the manual scram function would have
9 to be performed, at least some of the instrumentation for
10 that purpose should probably be safety-related.

11 MR. JENSEN: So you would need safety-related
12 instrumentation to know if you had to perform the function
13 to scram the reactor.

14 MR. CONRAN: It seems to fit -- it seems to
15 satisfy that criteria but not necessarily all the
16 instrumentation in the control room.

17 MR. JENSEN: Just enough that he would need to
18 perform that function to scram the reactor manually.

19 MR. KAUFFMAN: Getting back to rod position
20 indication that's used in the EOPs and boilers to tell you
21 whether --

22 One of the criteria for initiating standby liquid
23 control which is the system used to shut down the reactor
24 under certain conditions, can I go back by extension and say
25 that I need to know rod position so that I know when to use



1 standby liquid control or do I say as long as I have my
2 APRMs and other neutron instrumentation I'm covered there
3 for being able to tell when I need to us standby liquid
4 control?

5 MR. CONRAN: I don't really know. I would say
6 that whatever you're asking about, if it is relied on to do
7 that function, then I think it would be safety grade, it
8 would be safety-related.

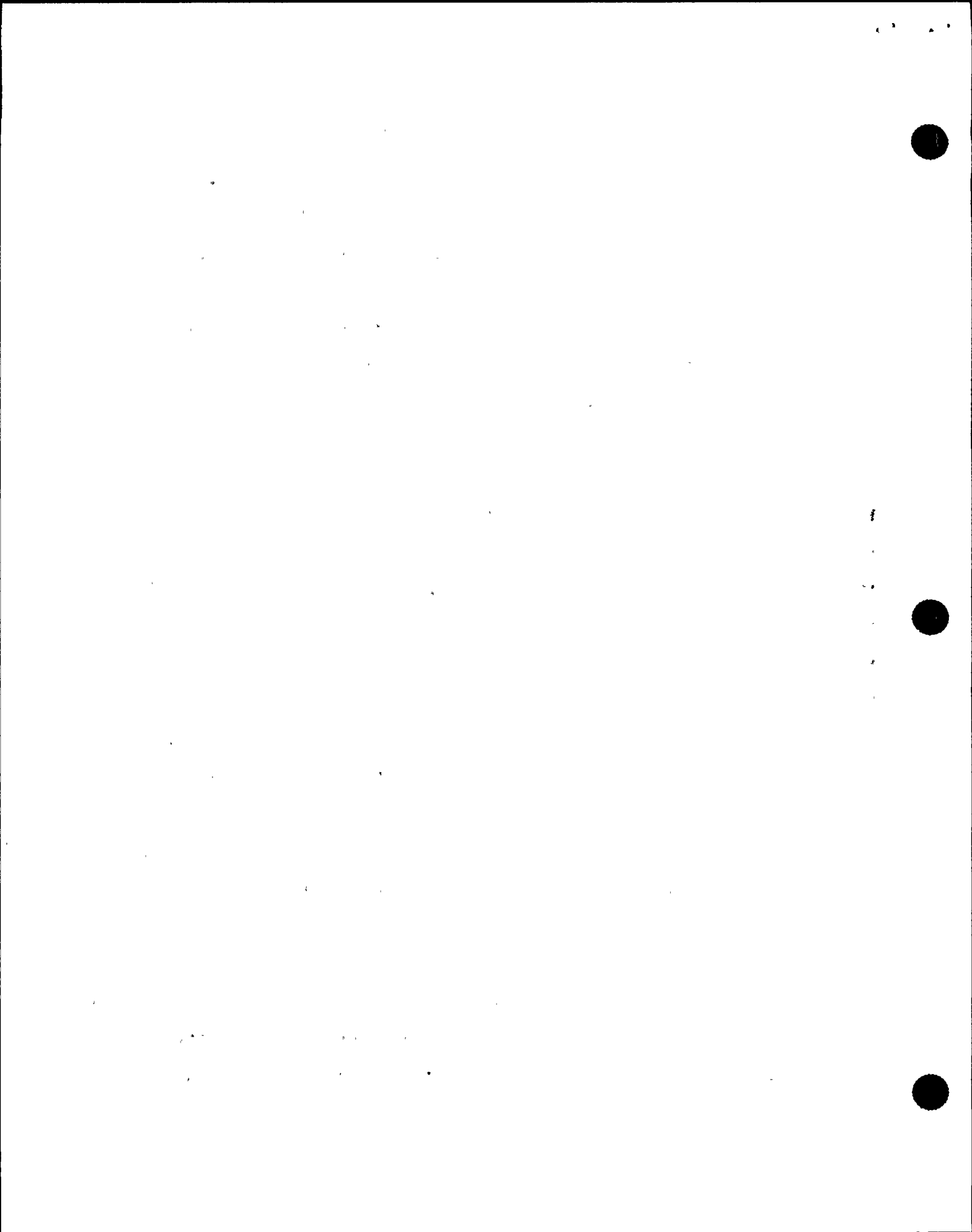
9 MR. KAUFFMAN: If I have my choice of two, the
10 rods or the flux instrumentation, as long as I have one that
11 is safety grade, I could call one safety grade and one
12 important to safety, and I would have it covered.

13 MR. CONRAN: Provided the one that is safety grade
14 satisfies all the requirements that are associated with
15 that, redundancy and diversity and that sort of thing.

16 What I was trying to think of, I think when you
17 asked the question you said if something was used to do that
18 and that's the point that I was trying to make.

19 It finally became clear in the TMI hearing that
20 that's the difference between what the intervenor or UCS was
21 saying or the staff was saying.

22 There was a lot of equipment that was used to
23 respond to the accident at Three Mile Island but it was not
24 necessary that all of that equipment -- that NRC now turned
25 around and makes sure that all the equipment that had been



1 used to respond to that accident was safety-related,
2 categorized as safety-related and qualified as safety grade.

3 It was still enough that if we made sure that the
4 equipment that must be relied on to do that function has to
5 be categorized safety grade and we make sure that it has all
6 the attributes that go along with the term safety grade.

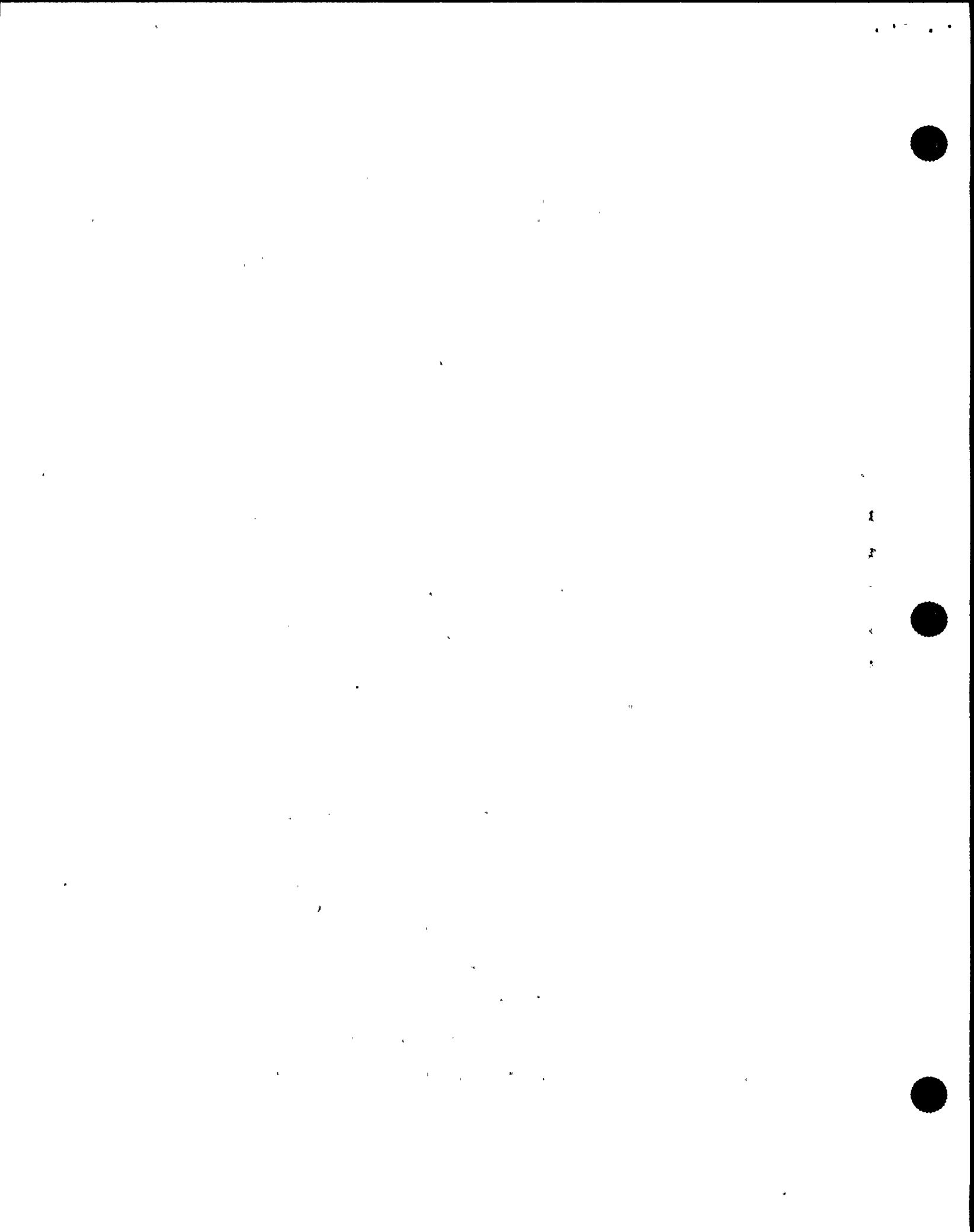
7 MR. JENSEN: So if we are going to rely on the
8 operator taking some important action to put the plant in a
9 safe condition, he should rely -- he should have safety-
10 related equipment that he should rely on or he could rely
11 on?

12 MR. CONRAN: Yeah. If we rely on the operator to
13 perform safety-related functions, then what he uses to do
14 that should be safety-related.

15 MR. KAUFFMAN: But not necessarily all of them,
16 just some of them.

17 MR. CONRAN: I said the ones that he relies on,
18 that he must be able to rely on to do that. That doesn't
19 mean that if they're all available but he might not choose
20 for some reason to use a nonsafety-related one. Certain
21 circumstances could arise where he might choose to do that,
22 but the one that must be relied on to perform that function,
23 that equipment should be safety-related.

24 MR. KAUFFMAN: If my EOP says check control rod
25 position indication, am I relying on that at that point or



1 am I relying on flux on -- if you can't tell where the rods
2 are, the flux instrument?

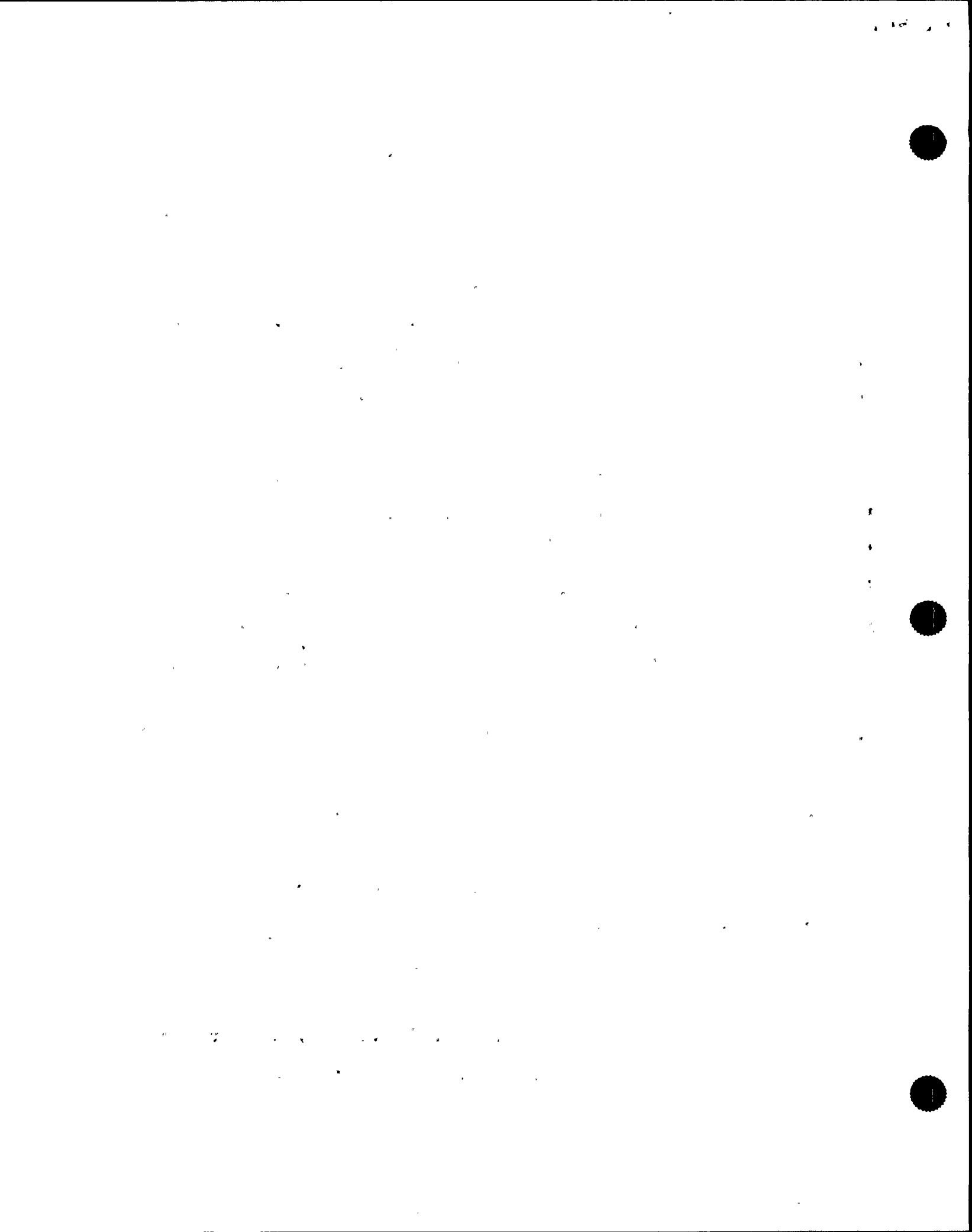
3 MR. CONRAN: Just as a general statement, I don't
4 think that all -- Everything that's referred to in the EOP
5 doesn't have to be safety-related and I don't know the kind
6 of detail that you're talking about but I know the criteria
7 and that is that an EOP or system design in whatever
8 context, if it is relied on to perform a safety-related
9 function then it should be considered safety-related, should
10 be classified safety-related and provided a safety grade.

11 Those two terms are used sort of interchangeably
12 but safety-related means the category and safety grade means
13 the quality level, the attributes. One is a categorization
14 and the other is quality levels and they refer to the same
15 thing.

16 MR. JENSEN: So if the operator was told to verify
17 that the control rods had inserted and, if not, to inject
18 boric acid, then this would be a safety-related function for
19 the control rod drive indication?

20 MR. CONRAN: But I don't know that you could tell
21 just from the procedure whether it should be safety-related
22 or not. It may take a deeper look.

23 Of all the different indications that he could
24 look at to try to make the decision that you're talking
25 about. At least one of them, if he relies on it to perform



1 a safety-related function, and I assume the one you're
2 talking about is to shut the reactor down, achieve and
3 maintain safe shutdown.

4 MR. JENSEN: Right.

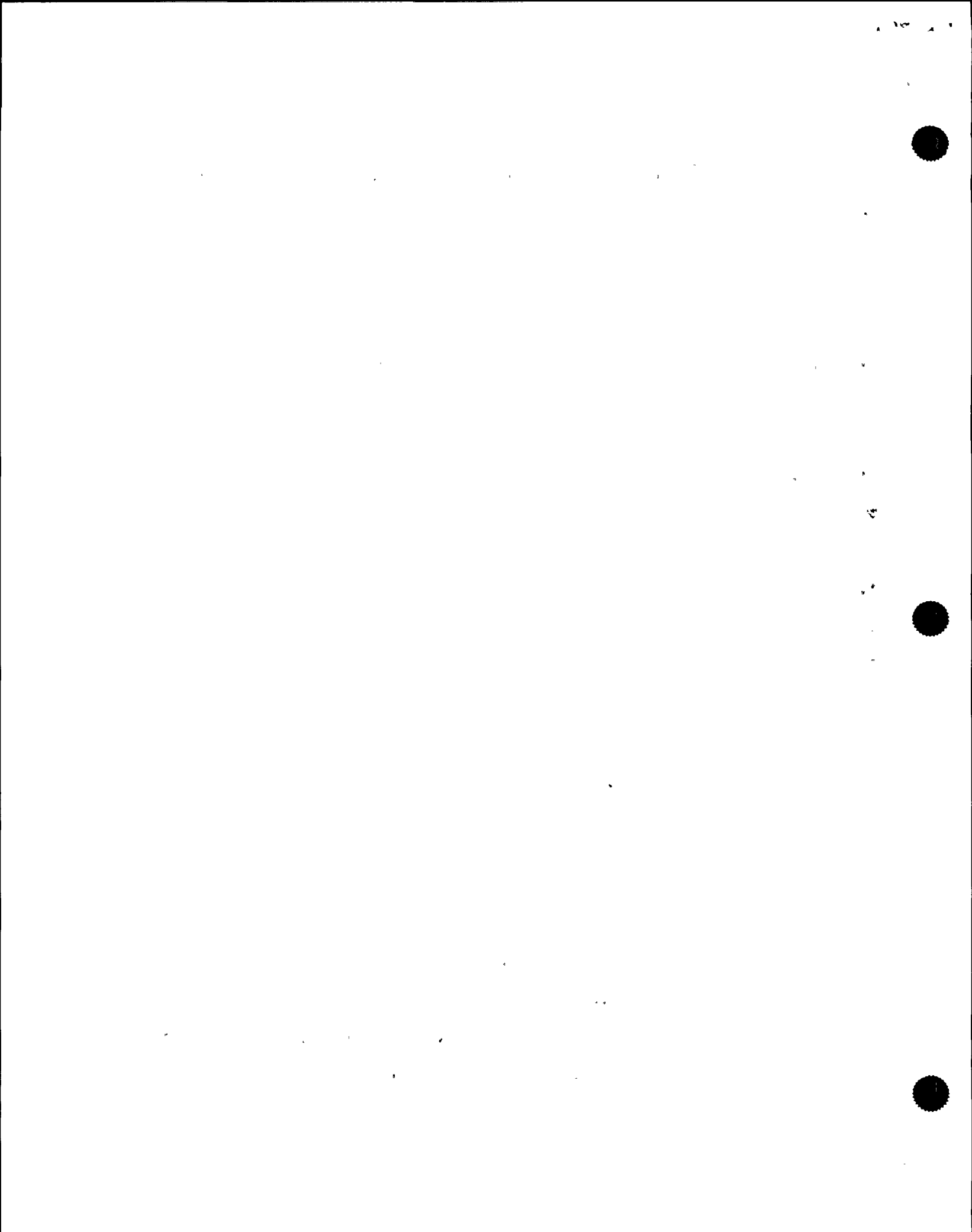
5 MR. CONRAN: Whatever he relies on, whatever the
6 design of the plant and the operator relies on to do each of
7 these should be safety-related.

8 MR. JENSEN: So the NRC should look at the total
9 instrumentation that he has and decide if he has enough
10 instrumentation to determine whether the reactor can be
11 safely shut down and maintained in a safe shutdown position.

12 MR. CONRAN: That's right, but first and foremost
13 the licensee should do that, the people who are responsible
14 for the design and the operation and fundamentally the
15 safety of the plant. They ought to do it first but we
16 should have in place a process that would check that.

17 MR. JENSEN: Right. After TMI, the TMI-2
18 accident, it was observed that the operator didn't have
19 enough instrumentation in the control room to tell them the
20 condition of the plant and it was required that plants
21 install a safety parameter display system to provide this
22 information on the post-accident conditions to the
23 operators.

24 Should this equipment in your view be considered
25 safety-related or important to safety or what?



1 MR. CONRAN: That's one where I have been involved
2 in one or another phase of the review so much that I know
3 that SPDS is not required to be safety-related.

4 That's not to say that it's not important and
5 useful. Certainly it can be used by the operator for a lot
6 of good purposes but it's not what is relied on to perform
7 the three safety-related functions.

8 MR. JENSEN: This is an off-the-wall question and
9 it came from the idea that airplanes when they crash they
10 have a black box that tells the final story of what
11 happened.

12 The question is should reactors also have some
13 kind of safety-related equipment to maintain and store
14 safely what went on during the event so that people later
15 can pull it out and analyze it and find out what happened?

16 MR. CONRAN: That's not a bad idea but I think
17 it's not for making post-accident investigations convenient
18 or easy. It's not one of the safety-related functions.

19 MR. JENSEN: Did I -- If you've been involved in
20 the review of EOPs -- I think I may have asked you that --
21 the emergency operating procedures.

22 MR. CONRAN: Not as a primary reviewer. Some EOPs
23 come through the CRGR and -- The interest in the CRGR
24 context is not like the primary reviewer at the regulatory
25 staff. I think maybe I should rephrase that.



1 We both have the common purpose and the principal
2 concern in the CRGR's mind, as well as the program office
3 and staff, is that safety, the vital safety interest is
4 ensured.

5 As long as that's not an issue then if you get
6 past the question of whether or not adequate protection is
7 involved, then the CRGR focus of attention is whether the
8 number of requirements, constituent requirements that make
9 up a new procedure are all needed and all justified -- do
10 you get the best bang for your safety buck in something new
11 that's proposed.

12 We've looked at EOPs in that context but not as a
13 primary -- The decision of whether or not the vital safety
14 interests was assured with or without this EOP had already
15 been addressed and resolved.

16 MR. KAUFFMAN: I take it you're talking here about
17 backfit.

18 MR. CONRAN: Yes.

19 MR. JENSEN: Does the staff in your view, have
20 they reviewed EOPs with the idea of determining the subset
21 of equipment that's required to perform the functions in the
22 EOPs to determine if there was enough equipment -- if enough
23 safety-related equipment is present to perform the EOPs, in
24 your opinion has the staff gone through that process and
25 gone through the steps and looked at the subset of safety-



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1 related equipment to determine whether it was adequate or
2 not?

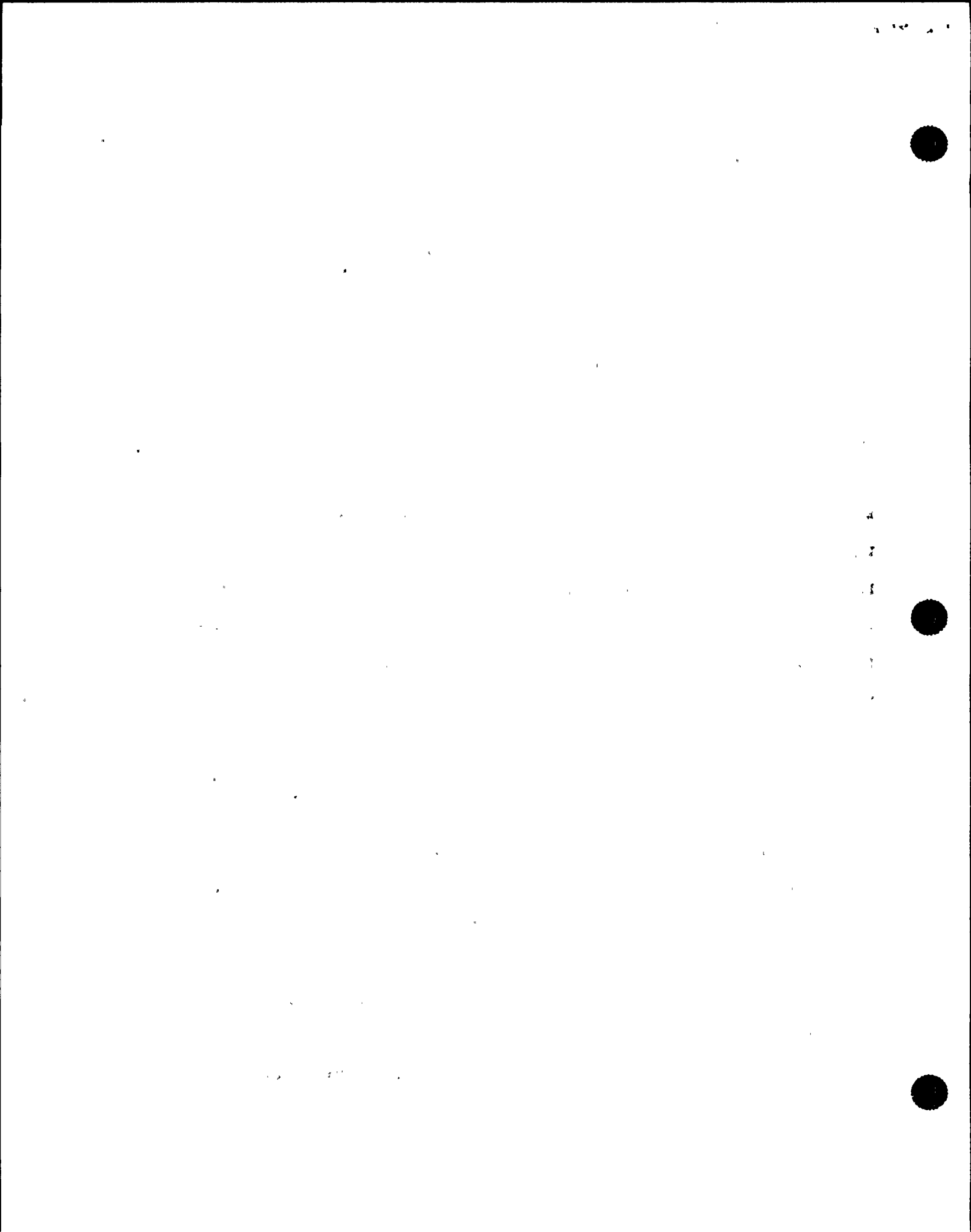
3 MR. CONRAN: I don't know but I don't have any
4 reason to think that they haven't.

5 The only knowledge I have about what goes on in
6 the staff's mind is I think there is still an unseemly
7 emphasis in some parts of the staff on this distinction
8 between safety-related and important to safety and I mean
9 the distinction the way that I mentioned some licensees
10 understand it that if it's not classified as safety-related
11 it's not of very great safety significance and it can be
12 regarded and treated in a regulatory fashion, much
13 differently and much less stringently than safety-related
14 stuff.

15 In some of the advance reactor work that's being
16 done, establishing criteria, design criteria and
17 requirements for the advance reactors, we've seen things com
18 through CRGR where the distinction is made in the old sense,
19 in the questionable sense, between safety-related and
20 important to safety or nonsafety -- between safety in
21 balance of plant, for example.

22 I think there is still a residuum of that attitude
23 even with the staff so I think it's probably true of
24 licensees as well. It dates from very far back.

25 I think it is an important part of the thinking of



1 a number of people who are involved in the nuclear reactor
2 enterprise, both in the staff and in the licensee community.

3 MR. JENSEN: What do you think the prevailing feel
4 is?

5 You mentioned that some staff members don't
6 believe that the staff should look at any equipment that's
7 not safety-related, I believe.

8 What would you say the prevailing view is of the
9 NRC or CRGR or what's our current policy?

10 MR. CONRAN: I think the prevailing view is that
11 there is considerable safety significance of things that are
12 important to safety but not safety-related.

13 I think PRAs, for example, have shown the safety
14 importance of balance of plant systems and taken as a whole
15 I've heard it said in some cases that there's more safety
16 importance to important to safety but not safety-related
17 systems than in some of the safety-related -- things that
18 aren't classified safety-related.

19 I think there is a recognition by most of the
20 staff and probably most of the licensees that because
21 something is not categorized as safety-related that you
22 can't ignore it and I don't mean just in the legal
23 regulatory sense. I mean from the safety viewpoint you
24 can't ignore it. It's very important.

25 MR. JENSEN: Should we go back maybe and take a



1 look at some of these plants that we've looked at maybe
2 before and maybe not looked in enough detail at the
3 equipment that's not safety-related? Should we go back and
4 take another look at them perhaps and make sure that ---

5 MR. CONRAN: I don't think we have to do things
6 differently than we do it.

7 There was a time when I was very concerned that we
8 should take a lot more initiative in doing the kind of
9 things that you're talking about but I've come to the view
10 that the incident response capability that we put in place
11 is a good way of getting indications of where we should
12 focus efforts.

13 I guess if there is anything that I thought should
14 be done additionally, it's just that we could do more, I
15 think, to clarify for everyone officially as an agency
16 position what is meant by, what is encompassed by the term
17 important to safety but not safety-related and lay to rest
18 beyond any doubt the fact that because of the safety
19 significance of that category of equipment that NRC has a
20 perfect right to regulate in that area and that we have high
21 expectations and we expect licensees to understand that and
22 act accordingly.

23 Just because a thing is not safety-related does
24 not mean that you can ignore it or, if not completely ignore
25 it, not think about or not recognize its safety significance



1 and act accordingly in the day-to-day operation of your
2 plant.

3 MR. JENSEN: Well, Jim, I think you summed things
4 up pretty well.

5 MR. KAUFFMAN: I'll play devil's advocate here and
6 I'll imagine that I'm a member of the press and I ask you --
7 you just told me that this ITS equipment is very -- has
8 considerable safety importance, to use your words, and you
9 say we're trying to get the licensees to understand we can
10 regulate it.

11 I would get from that the impression that maybe we
12 haven't regulated it heavily in the past and I was wondering
13 if you could give me some examples of some important to
14 safety equipment that we have put rules and regulations and
15 new requirements on and that we are regulating.

16 MR. CONRAN: I would think we've regulated the
17 bejeebers out of it and there's an awful lot of --

18 First of all, there are regulations that address
19 the important to safety but not safety-related equipment.
20 There's reams of guidance, regulatory guidance and standard
21 review plans and that sort of thing that address important
22 to safety but not safety-related equipment.

23 If there is something left to do, I think it's --
24 The NRC I think understands what has to be done in that area
25 and has gone about doing it.



1 If there remains something to done that we should
2 take an initiative on, it's making sure that licensees
3 agree, that they understand these terms the way we do
4 because in one context or another over the years we've come
5 head on into the situation where it was clear that the
6 licensee or an applicant didn't understand our regulations
7 and what is minimally required for safety the same way that
8 NRC does.

9 I think in the Shoreham hearing an estimate was
10 made of the amount of staff review effort that was dedicated
11 to important to safety but not safety-related. It was made
12 by the assistant director who had direct cognizance over
13 review of auxiliary systems and the kind of things that are
14 not safety-related generally.

15 His estimate after he had surveyed other parts of
16 the regulatory staff and operation was that at least 25
17 percent of staff review effort on reviewing a new
18 application was applied to this category of equipment by
19 inspection.

20 You can pick up many reg guides that address
21 things that are not categorized as safety-related.

22 An entire part of our regulations, part 20, does
23 not address safety-related, that is, design basis accident
24 conditions. It's day-to-day operations. It's effluent
25 levels, very low effluent levels, and the concern is the



1 cumulative fact of constant very low radiation levels that's
2 important to see.

3 That's one of the things, one of the areas we have
4 to regulate in to get reasonable assurance of undue risks in
5 the operation of the facilities so an entire section of the
6 10 CFR addresses things that are not safety-related.

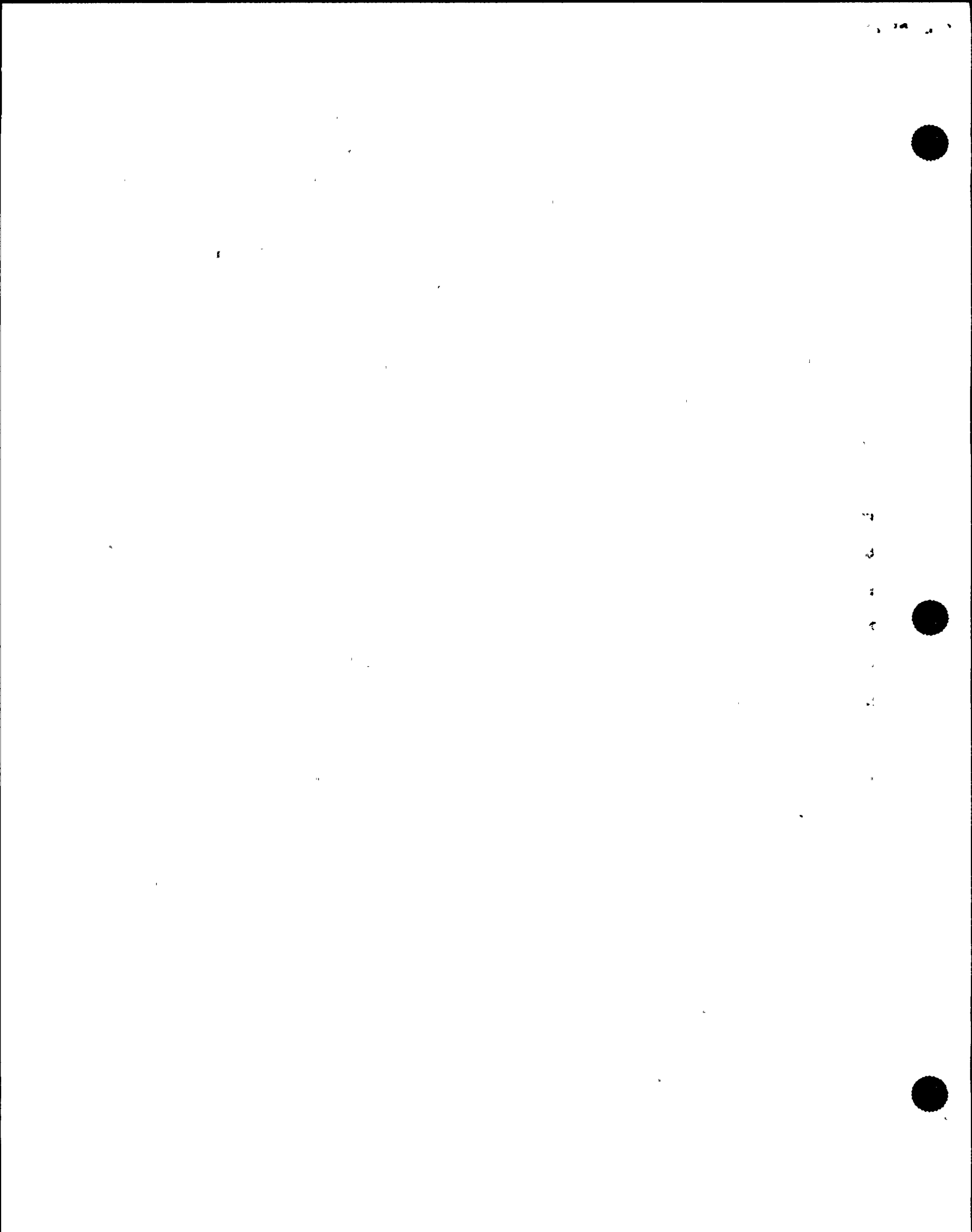
7 A very large amount of our regulatory guides and
8 the overall standard review plan address important to safety
9 but not safety-related equipment.

10 So from the NRC viewpoint, I've always thought
11 that at least among ourselves we have our hands around the
12 problem.

13 What I have been concerned about in the past is
14 whether or not the licensees to the high degree that I think
15 they should agree with that, what percentage of them agree.

16 I once suggested that we send out a generic letter
17 that said here are the definitions that the staff observe,
18 safety-related, important to safety, safety grade, do you
19 agree with these.

20 Well, we didn't send the letter out but that's the
21 kind of thing that I think could be done. That's simplistic
22 but to make sure that licensees as a whole, as a group, that
23 there is a meeting of the minds on this contract that there
24 is with the agency and the licensees that allows people to
25 operate plants, if we at least all understand the language



1 of the contract the same way, and I think we could do more
2 to assure that that was true to the degree that everyone,
3 even someone like me, would feel very comfortable with it.

4 That's not to suggest that I think we're in such
5 bad shape in that regard that it's dangerous or that we -- I
6 think some work could be done in that.

7 We could have a reg guide, for example, that
8 identified things important to safety but not safety-
9 related.

10 We have a reg guide that identifies safety-related
11 stuff, that takes the function in the regulations and gives
12 a list of equipment or systems that perform those functions.

13 That same kind of thing could be done and for
14 those people who still don't have exactly the understanding
15 of regulations and their implications that I do or that the
16 agency does, that might be helpful.

17 MR. JENSEN: All right, we will end the interview.
18 Thank you, Jim.

19 (Whereupon the matter concluded at 5:00 p.m.)
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REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission

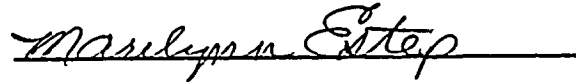
in the matter of:

NAME OF PROCEEDING: IIT Interview of Bob Conran

DOCKET NUMBER:

PLACE OF PROCEEDING: Bethesda, Maryland

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.



Official Reporter
Ann Riley & Associates, Ltd.



OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: U.S. Nuclear Regulatory Commission
Incident Investigation Team

Title: Investigative Interview of:
JIM CONRAN

Docket No.

LOCATION: Bethesda, Maryland

DATE: Saturday, August 30, 1991

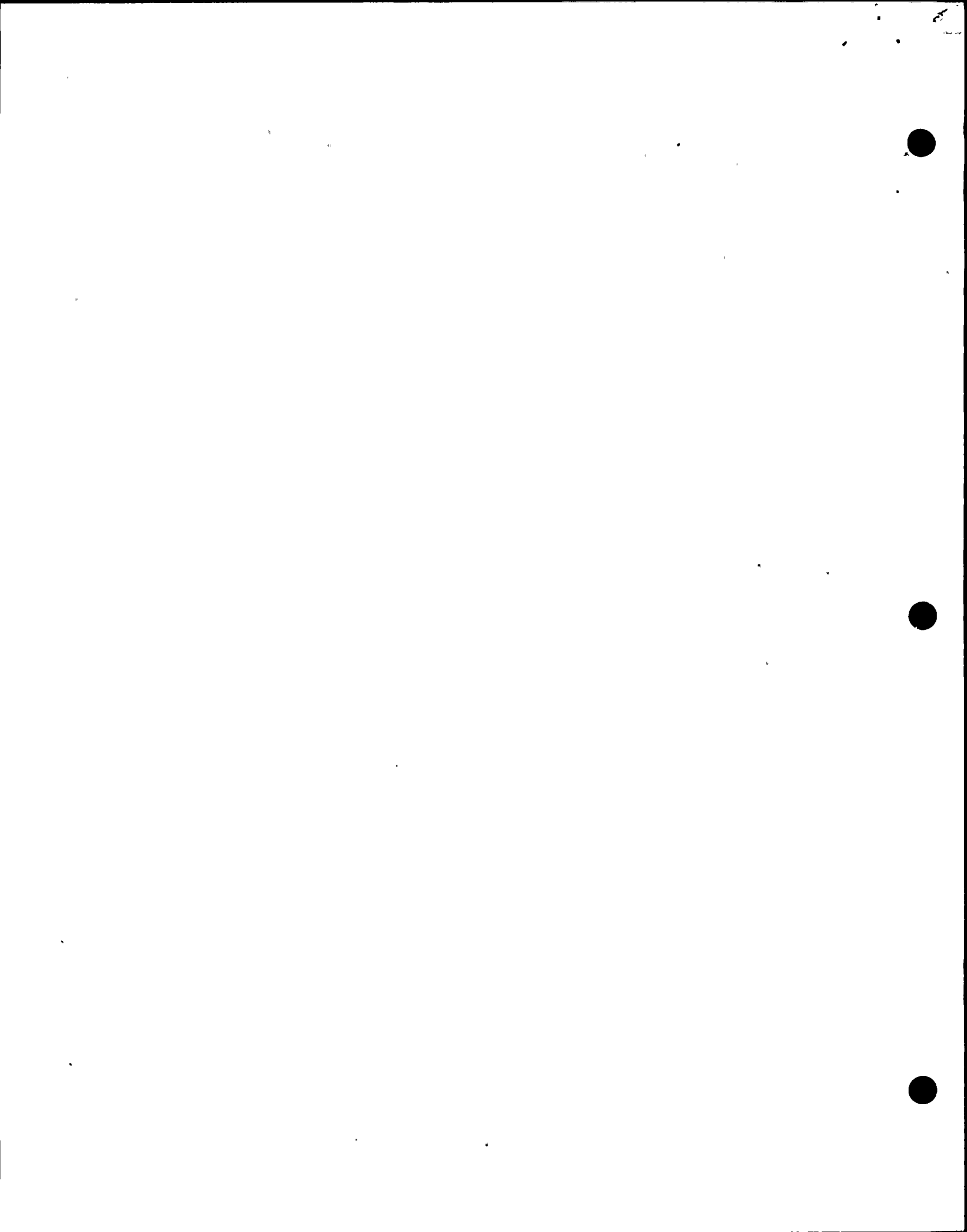
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ADDENDUM

Page	Line	Correction and Reason for Correction
2	14 & 15	"I work in The Director of AEPD's office as staff of The Committee to Review Generic Requirements (CRGR)" Reason: Clarification
3	2	Change "out" to "on" Reason: Clarification/Editorial
4	17	Change the words "the ones at" to "no undue" Reason: Clarification
5	10	Insert the word "such" between the words "generally" and "licenses" Reason: Clarification
6	6	Add the words "to consider the issue" at the end of the sentence Reason: Clarification
9	20	Change the word "really" to "necessarily"
10	17	Emphasize the word "used" by underlining or quotation marks Reason: To make clearer the distinction in trying to make between simply using certain equipment to perform safety functions and relying (by design) on certain equipment to perform safety functions.
16	22	Emphasize the word "used" by underlining or quotation marks (Same reason as above)
16	29	Add the words "be safety grade" after the word equipment. Also delete the words "that" and "turned around and"
17	1	Change the word "used" to relied on "truly relied on" Reason: Necessary changes to ^{the}
17	3	Delete the words "It was still enough that if" Reason: Refer changes Page 16, Line 28 Through Page 17, Line 3: Necessary to understand the important point being made
20	17	Delete the words "its not for" and
20	18	Delete the period after "easy", and change "It's" to "is". Reason: Necessary to understand the point being made.

Date 9/24/91 Signature James H. Gunn

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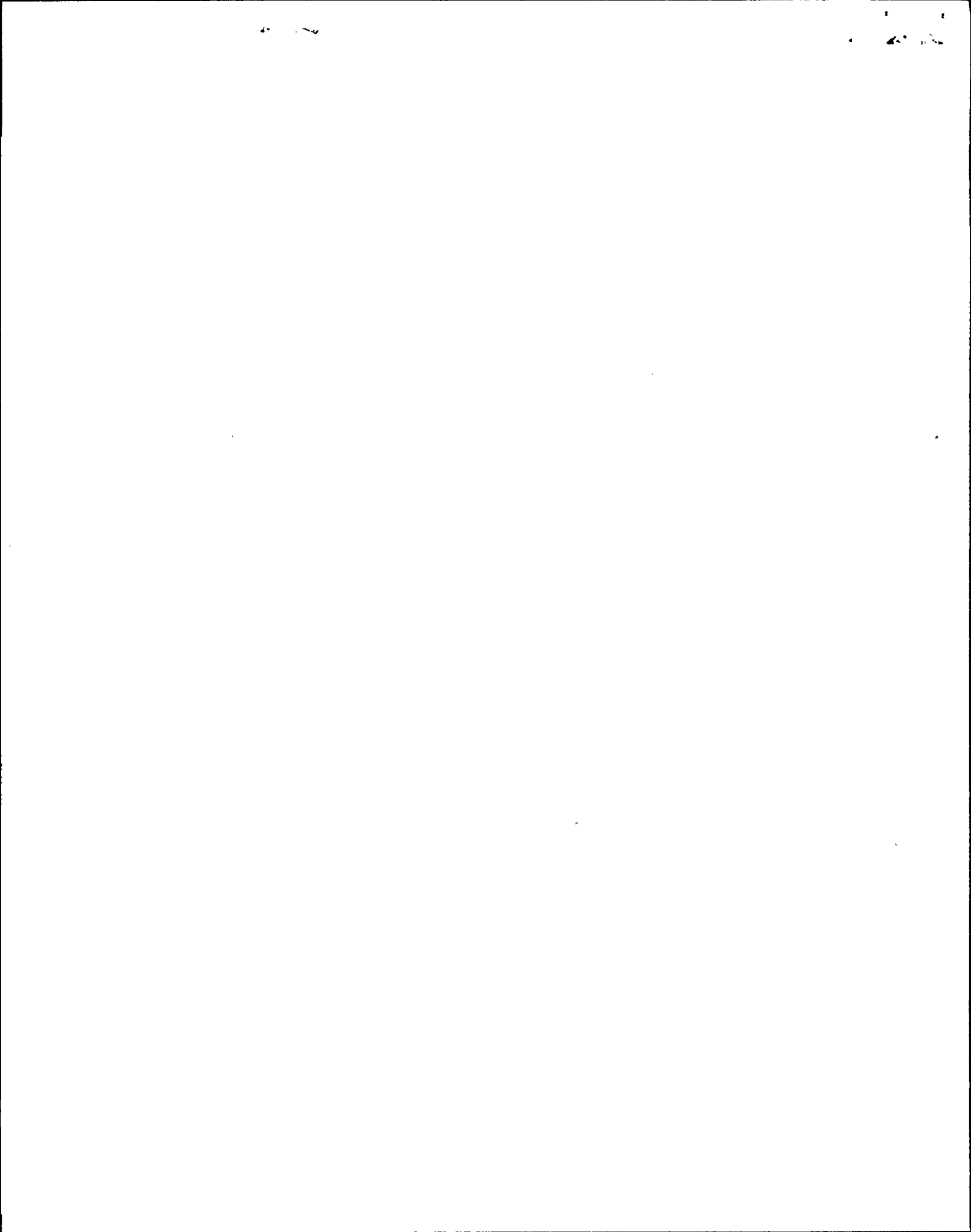
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ERRATA SHEET

ADDENDUM

<u>Page</u>	<u>Line</u>	<u>Correction and Reason for Correction</u>
27	1	change the word "fact" to "effect" and
27	2	change the change the word "see" to "set."
Reason: for changes above: Clarification		
27	4	Insert the word "no" between the words "of" and "undue"
Reason: Word omitted in transcript		

Date 9/29/91 Signature James H. Cannon



1
2 UNITED STATES OF AMERICA
3 NUCLEAR REGULATORY COMMISSION
4 INCIDENT INVESTIGATION TEAM
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7 INTERVIEW OF)
8)
9 BOB CONRAN)

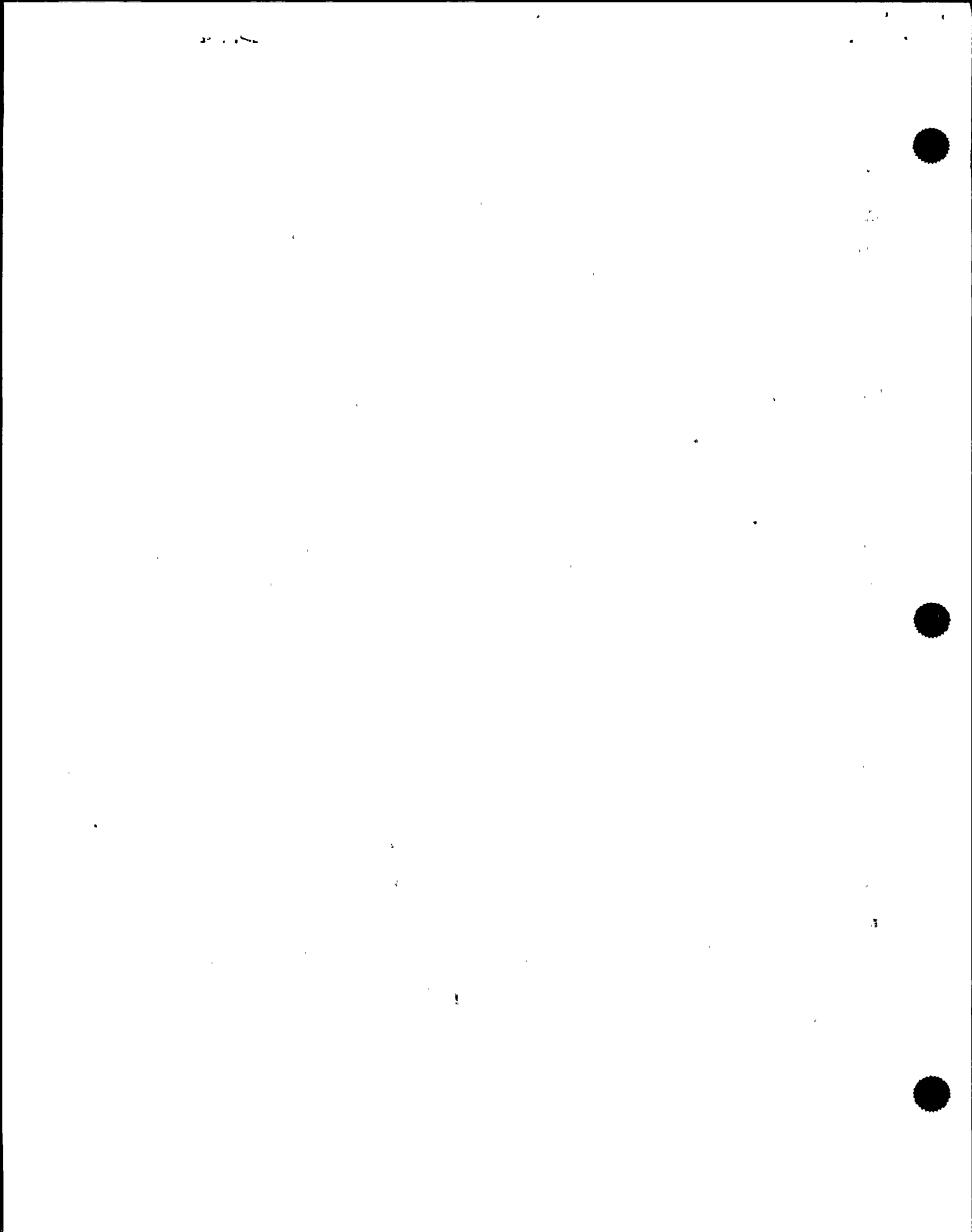
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11 Nuclear Regulatory Commission
12 The Woodmont Building
13 8120 Woodmont Avenue
14 Bethesda, Maryland
15

16 Friday, August 30, 1991
17

18 The above-entitled interview convened, pursuant to
19 notice, in closed session at 4:08 p.m.
20

21 PARTICIPANTS:

22 JOHN KAUFFMAN, NRC/IIT Team
23 WALTER JENSEN, NRC/IIT Team
24
25



P R O C E E D I N G S

1
2 MR. KAUFFMAN: Good afternoon. It's August 30th
3 1991 and it's about seven minutes after 4:00 in the
4 afternoon.

5 We are in the Woodmont Building, Bethesda,
6 Maryland. We are going to conduct an interview of Jim
7 Conran and the interview is part of the Nine Point Unit 2
8 NRC Incident Investigation Team, of the events that occurred
9 there on August 13th 1991.

10 I'm John Kauffman with NRC AEOD.

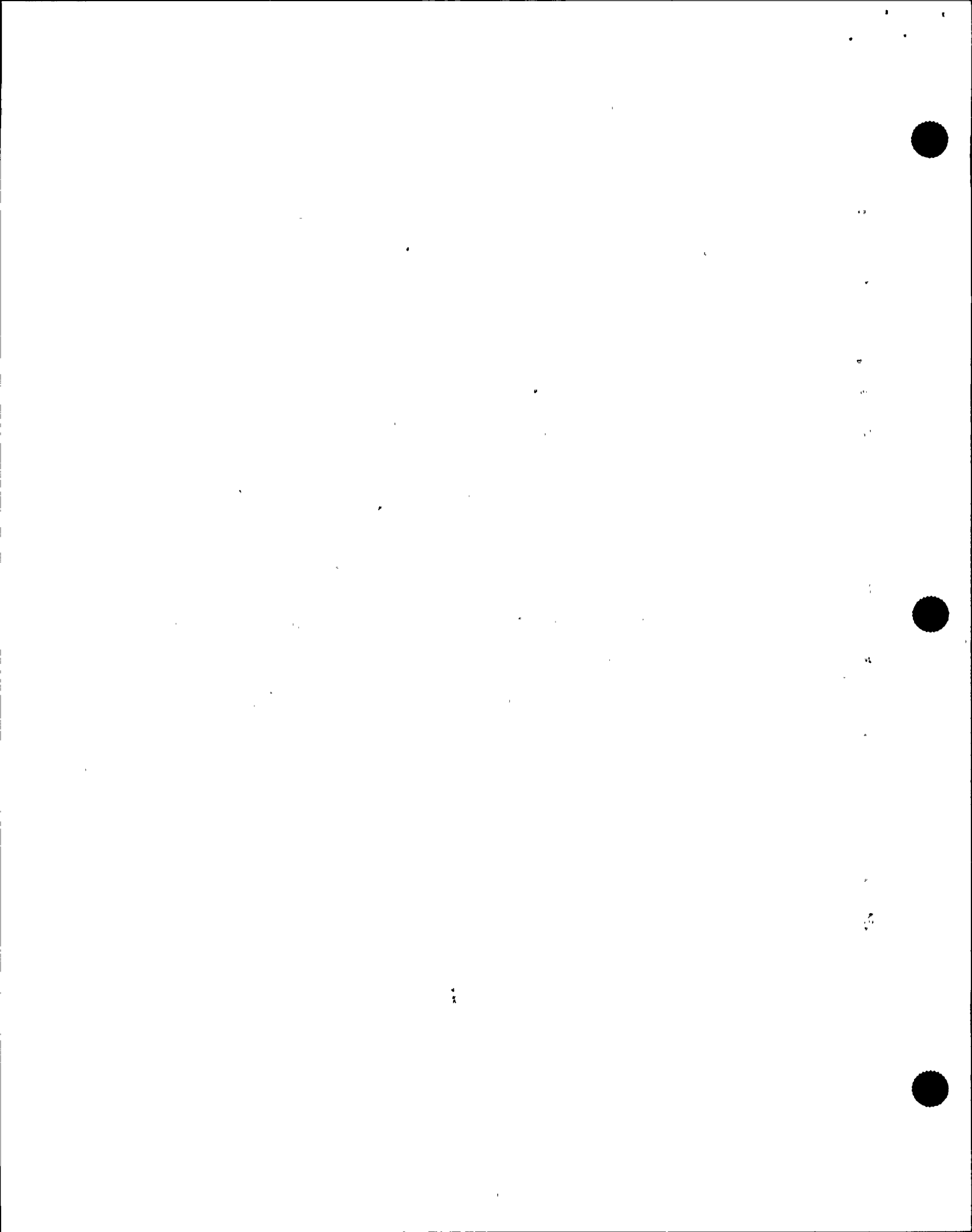
11 MR. JENSEN: I'm Walter Jensen, NRC, Events
12 Assessments Branch.

13 MR. CONRAN: I'm James H. Conran. I'm with the
14 AEOD staff. I work in the director AEOD's office as CRGR of
15 the staff for the committee to review generic requirements.

16 MR. KAUFFMAN: Jim, can you tell us a little bit
17 about your prior work experience, what kind of things you've
18 been involved in, and maybe touch on your educational
19 background?

20 MR. CONRAN: I have a bachelor of science degree
21 in physics and 24 years now with the agency, starting with
22 AEC in Albuquerque.

23 I've been at headquarters since 1973, several
24 years with the ACRS staff, also worked in the safeguards
25 organization for a couple of years.



1 The relevant experience for this inquiry I suppose
2 is the experience as a project manager in NRR, working out
3 standard balance of plant designs.

4 I served on the lessons learned task force after
5 TMI-2. Following that I worked in the division of systems
6 integration on the systems interaction issue, and in that
7 context, because of that experience, served as the staff's
8 witness in the TMI hearing and at the Shoreham hearing on
9 the subject of safety classification and systems
10 interaction.

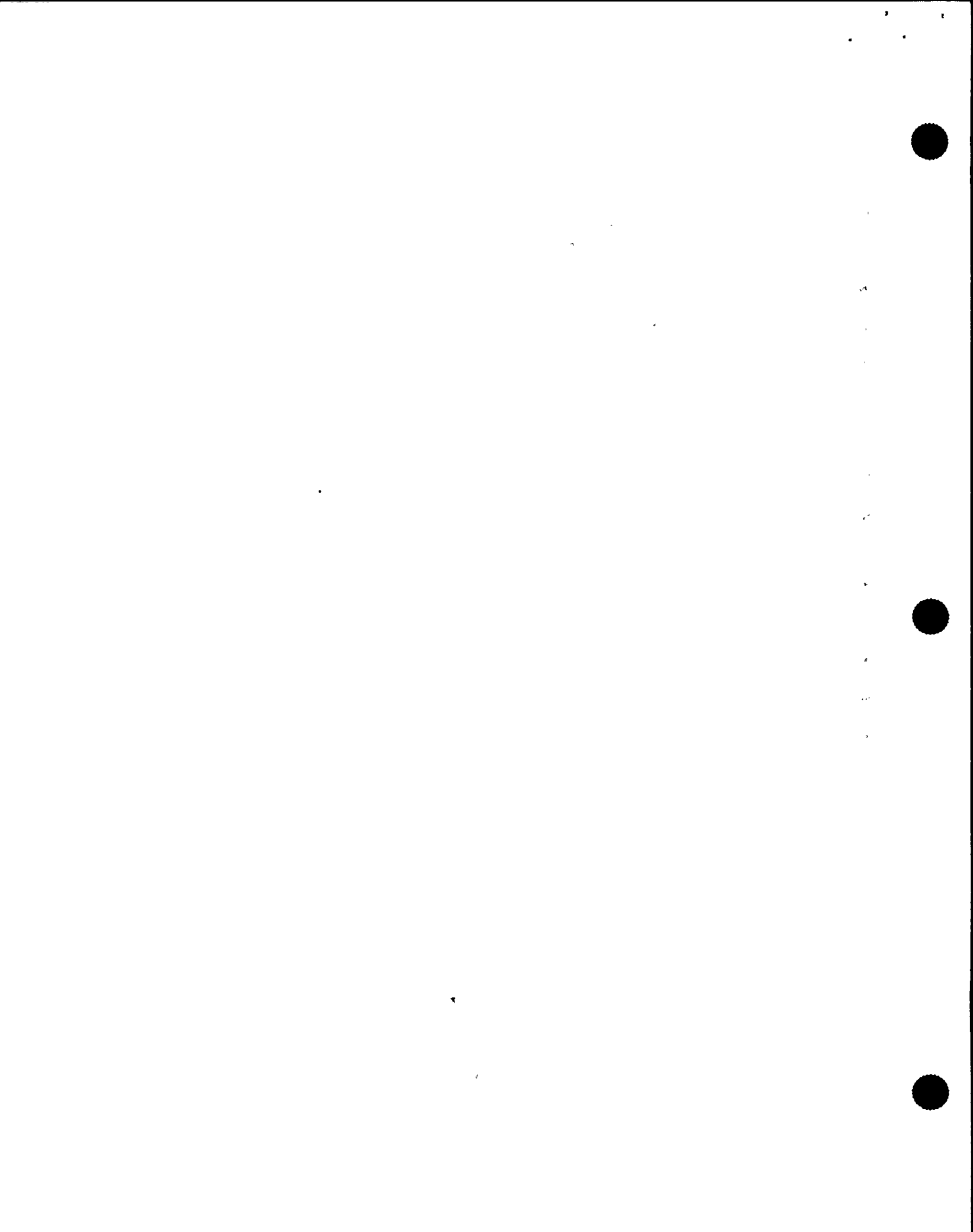
11 For the last eight years I've been on -- almost
12 eight years -- I've been on the staff of the committee to
13 review generic requirements.

14 MR. JENSEN: Jim, shortly after TMI, there was an
15 issue of classification of safety equipment and importance
16 to safety and safety-related and not related to safety.

17 Can you describe your efforts in that behalf?

18 MR. CONRAN: The contention that I addressed in
19 the Three Mile hearing was a UCS contention that all
20 structure systems and coordinates that are used in
21 responding to an accident, specifically the TMI-2 accident,
22 should be made safety grade.

23 Safety grade means that they are dedicated to the
24 safety function involved and meet very strict requirements
25 of quality, resistance to earthquakes and that sort of



1 thing.

2 The testimony that I developed for the Three Mile
3 hearing defined the terms safety-related, important to
4 safety and safety-grade and then proceeded to argue that all
5 of the equipment that was used to respond in the Three Mile
6 accident didn't have to be safety grade or the equipment
7 safety classification, safety related.

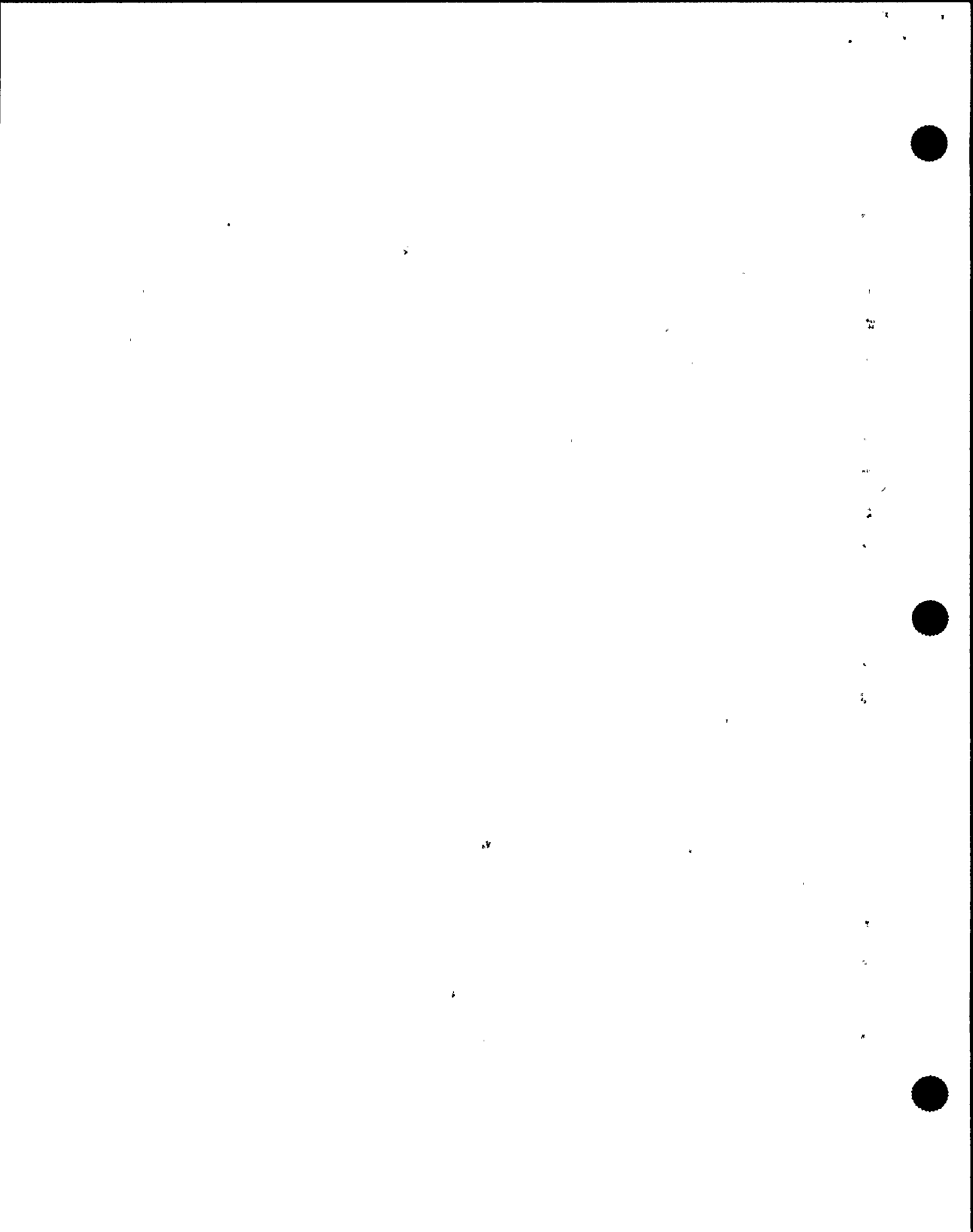
8 All the equipment that was relied on, that is that
9 had design purpose to address design basis accidents, has to
10 be classified and qualified as safety related.

11 There is -- In the NRC's regulations, there is
12 definition of a safety classification called important to
13 safety that is larger than and includes safety related.

14 It's defined in the introduction to the general
15 design criteria and basically the important to safety
16 structure system components are those required to provide
17 reasonable assurance of the ones at risk in the operation of
18 the plant.

19 That's as contrasted to the safety-related system
20 structures and components which are defined as those needed
21 to provide well defined safety functions.

22 For example, to shut the reactor down and keep it
23 shut down, to maintain the integrity of the primary coolant
24 boundary and to limit the consequences of an accident to
25 less than the limits that are given in the regulations.



1 MR. JENSEN: Do you feel that these definitions
2 are fairly well defined in the regulations?

3 MR. CONRAN: There's a great deal of lack of
4 uniformity, I think, in the understanding of the meaning and
5 the implications of the term important to safety.

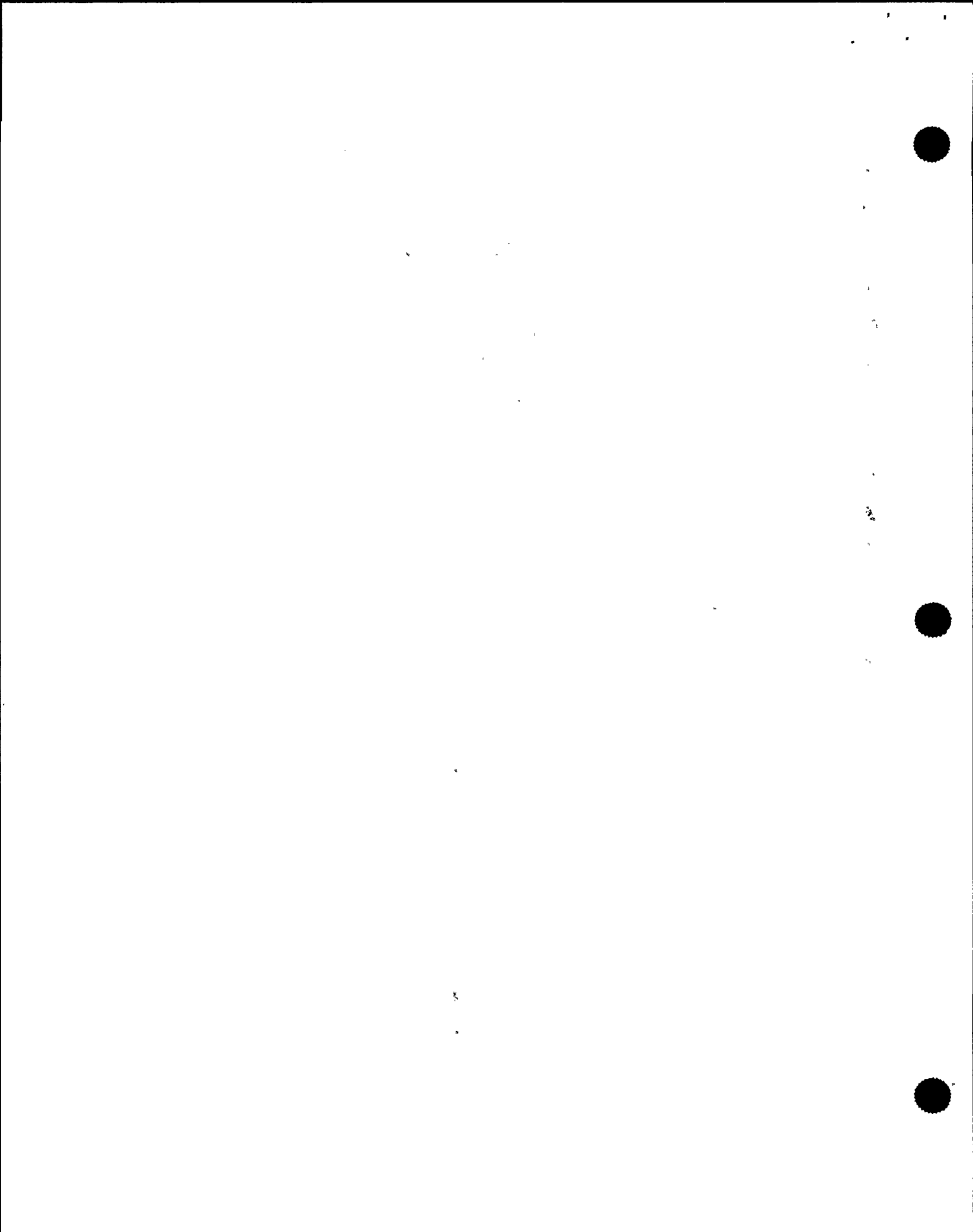
6 There is a general characterization, there are a
7 number of licensees -- from experience, I'm aware that there
8 are a number of licensees that regard important to safety
9 classification to be equivalent to or the same as safety-
10 related and generally licensees will argue or be of the view
11 that NRC's regulatory purview is limited to that category of
12 structure systems and components that we in NRC refer to as
13 safety-related.

14 This difference of understanding has been elevated
15 even to the Commission level and the Commission has finally
16 given a determination that in fact important to safety
17 category is bigger than and includes the safety-related
18 category.

19 MR. JENSEN: You say the commission has given --
20 Do you have a reference?

21 MR. CONRAN: Yes, I have an SRM that I brought
22 with me today where the Commission states that.

23 The context was that this issue became
24 sufficiently important and visible following the Shoreham
25 hearing that the Commission was involved in the decision of



1 at least that part of it.

2 The licensee involved and the law firm involved in
3 the Shoreham application hearing were instrumental in
4 forming the group that petitioned the Commission to make a
5 decision that important to safety was the same as safety-
6 related and so the Commission did agree.

7 The staff did a lot of work and the Commission
8 considered the question, among many other related questions.

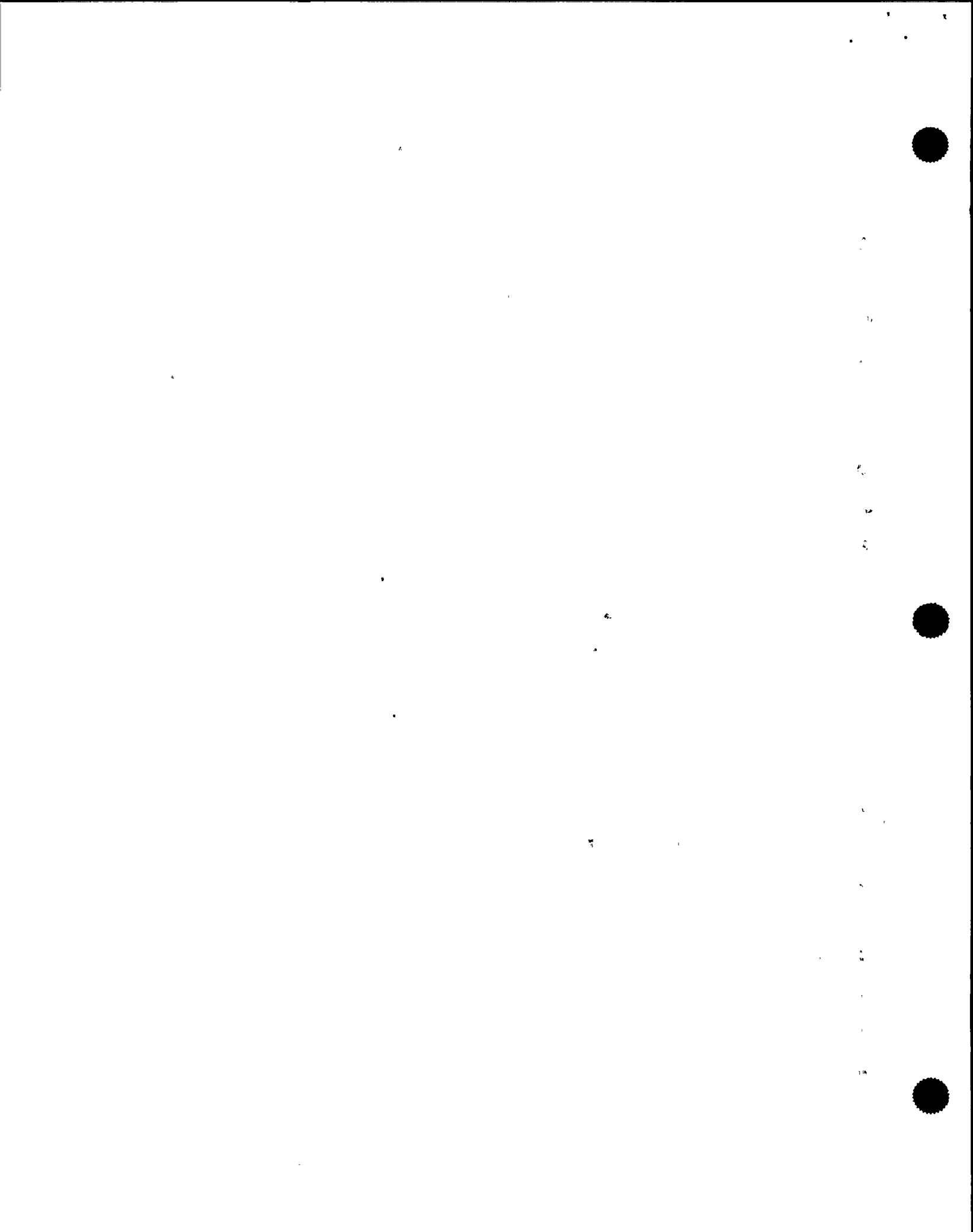
9 There is really only a clear pronouncement I think
10 on the issue of whether or not important to safety is the
11 same as safety-related.

12 We haven't gone a great deal farther in clarifying
13 exactly what is important to safety and exactly what is the
14 regulatory status of things that are important to safety but
15 not safety-related and generally clarifying the subject so
16 that all licensees and all staff are in close agreement in
17 their understanding of these terms and their applications.

18 MR. JENSEN: Could you give us the name and date
19 of the SRM, just so we have it in our notes?

20 MR. CONRAN: The SRM I'm referring to is staff
21 requirements memo on SECY85-119, issuance of proposed rule
22 on the important to safety issue, dated December 21 1985.

23 The Commission pronouncement that I was referring
24 to is -- I quote -- concerning the ITS, important to
25 safety, definition, safety-related is a subset of ITS.



1 MR. JENSEN: What types of review should the NRC
2 staff have for items that are important to safety? Do we
3 have authority to review and approve this type of thing or
4 should the staff only look at safety-related equipment?

5 MR. CONRAN: Our regulations clearly refer to
6 structure systems and components that are outside safety-
7 related category.

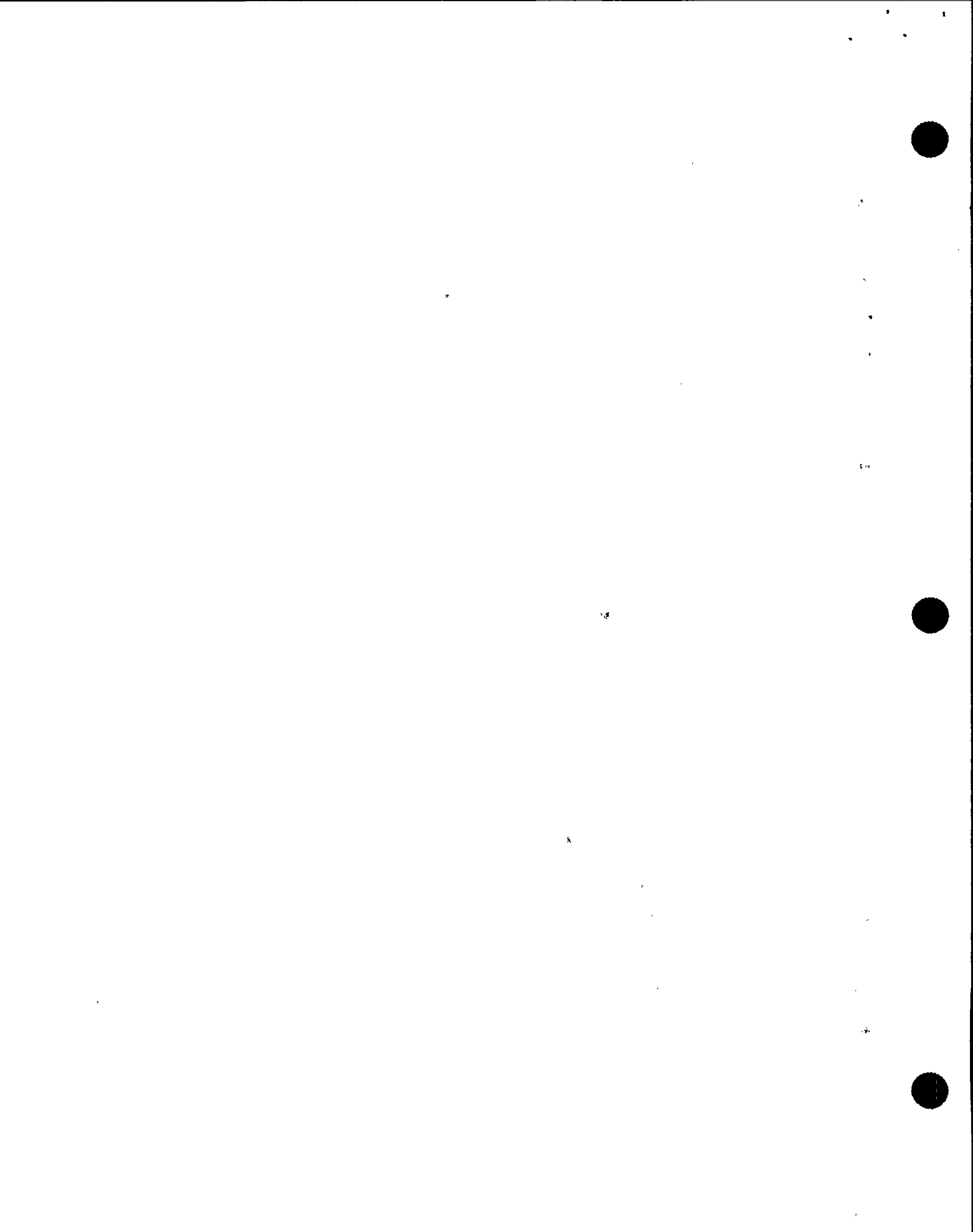
8 In fact, general design criteria supplemented by
9 the standard review plan and numerous reg guides provide
10 regulatory requirements and guidance, further guidance, on
11 what is appropriate with regard to design requirements and
12 staff review criteria for important to safety but not
13 safety-related structure systems and components.

14 MR. JENSEN: You had said that some licensees
15 maybe feel that the staff should not be reviewing equipment
16 as important to safety and only look at safety grade
17 equipment.

18 Would Niagara Mohawk be one of the licensees that
19 would not want the staff to look at important to safety?

20 MR. CONRAN: I don't have any knowledge whether or
21 not Niagara Mohawk, how they feel on that question. That
22 was a general observation that comes out of experience of
23 the interactions between industry representatives and
24 Commission staff, and even the Commission in the past.

25 I didn't mean to imply, incidentally, by my



1 comments that licensees don't have any regard for the safety
2 significance of things outside the safety-related category,
3 but the struggles over this issue in the past have largely
4 been of a legal sense, what are licensees legally required
5 to do in these areas.

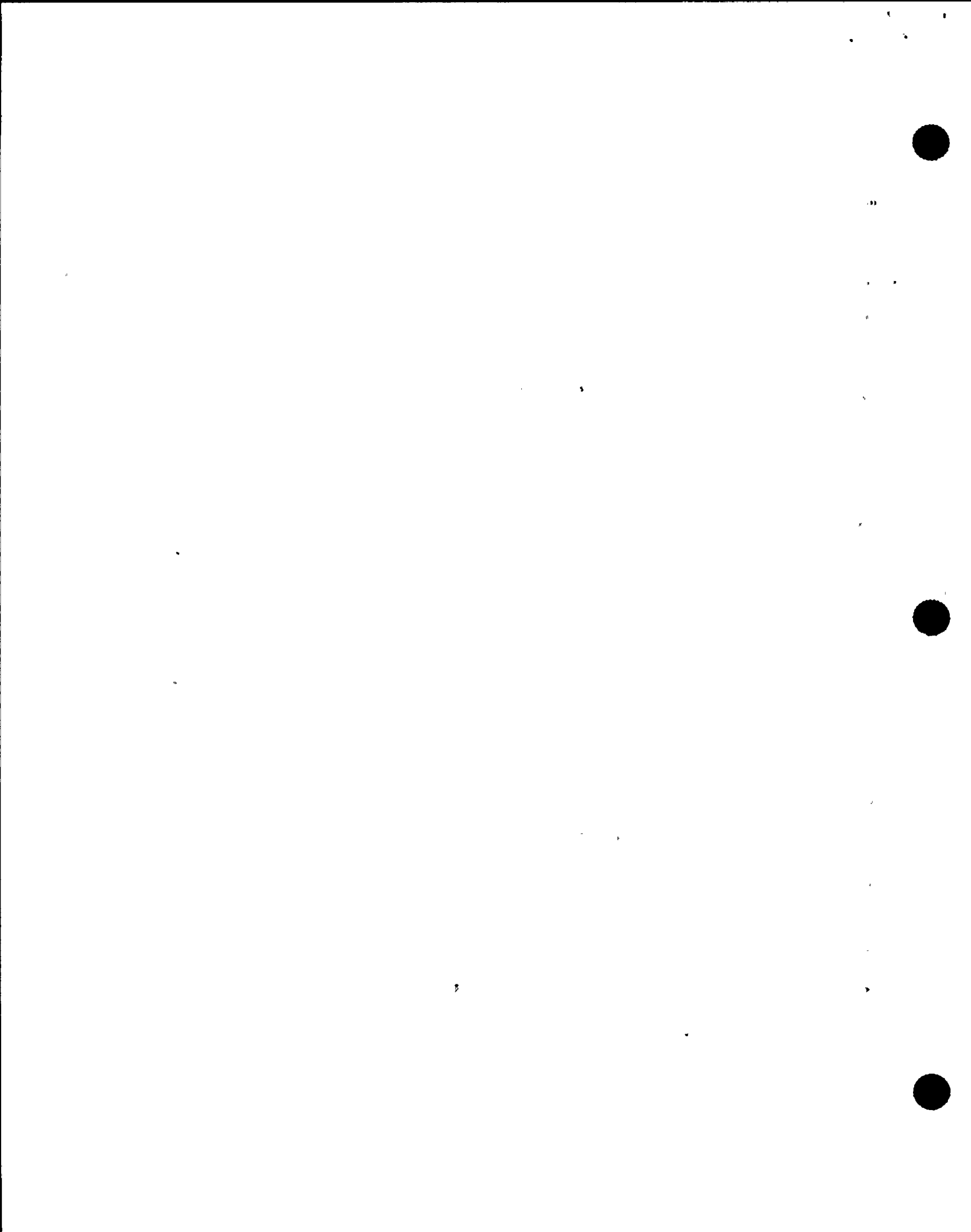
6 That certainly doesn't mean that licensees might
7 not go beyond what is legally required by regulation.

8 MR. JENSEN: Do you know of any attempt to
9 discourage the NRC staff from reviewing equipment that's
10 important to safety?

11 MR. CONRAN: On a current basis, I don't. That
12 question I think was probably more relevant eight or ten
13 years ago, when for example inspectors would say that some
14 licensees would try to prohibit inspector access or
15 inspection of important to safety but not safety-related
16 equipment, balance of plant equipment.

17 I think we are probably past -- I think we are
18 probably past the point where that's a big problem these
19 days. I think licensees would no longer -- most licensees
20 would no longer try to interfere with inspectors' efforts to
21 examine balance of plant, inspect balance of plant, but it
22 has happened in the past.

23 It's one of the issues that came to the surface
24 when we were arguing this issue in the TMI and the Shoreham
25 context.



1 MR. JENSEN: Is there any difference in the
2 quality of electrical power that's required for equipment
3 that's important to safety compared to safety-related
4 equipment?

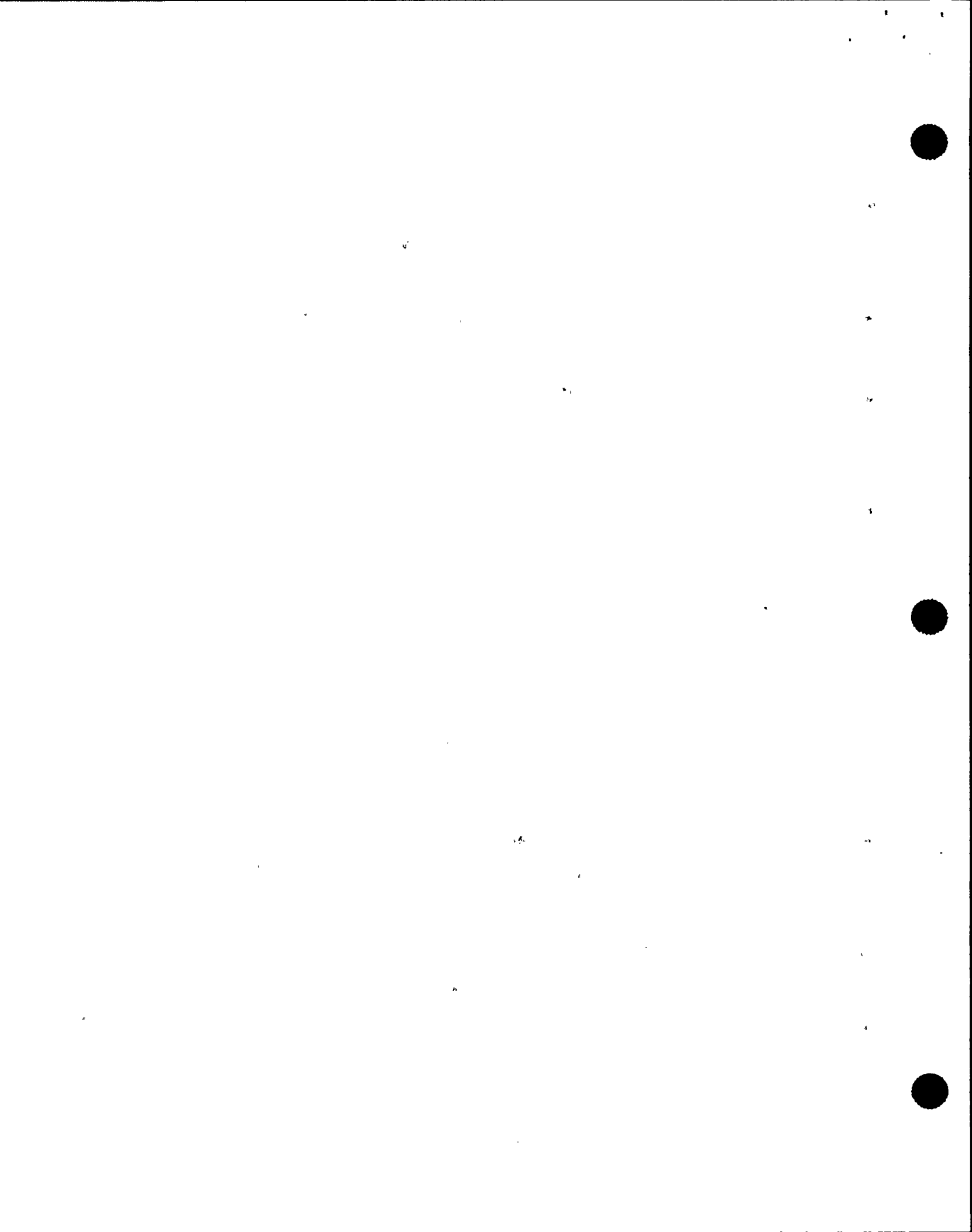
5 MR. CONRAN: I think generally there is, yes. My
6 understanding is that safety-related power supplies, for
7 example, would have features of redundancy and diversity
8 whereas important to safety but not safety-related equipment
9 might very well not, or would not be required to at any
10 rate.

11 There are differences, for example, with regard to
12 vulnerability to design basis earthquakes. Safety-related
13 equipment should be able to function following a design
14 basis earthquake. There's not that kind of requirement on
15 important to safety.

16 That's a very awkward phrase. Is there something
17 I could substitute for that? It's important to always say
18 that because the tendency is to say, well, there's important
19 to safety equipment and there's safety-related equipment as
20 through they are different things. They are not really.

21 MR. JENSEN: But the requirements that they would
22 have, for example whether they should have class 1-E power,
23 wouldn't they be different for safety-related and important
24 to safety equipment?

25 MR. CONRAN: Yes.



1 MR. JENSEN: There have been several events in the
2 past where control room instrumentation has been lost and
3 caused difficulties to the operator, events at Rancho Seco
4 and Beaver Valley and the recent event at Nine Mile Point
5 Unite 2 where control room instrumentation was lost.

6 Is the NRC reviewing its position on the power
7 supply that would be required for this equipment?

8 MR. CONRAN: I'm sorry, I didn't understand.

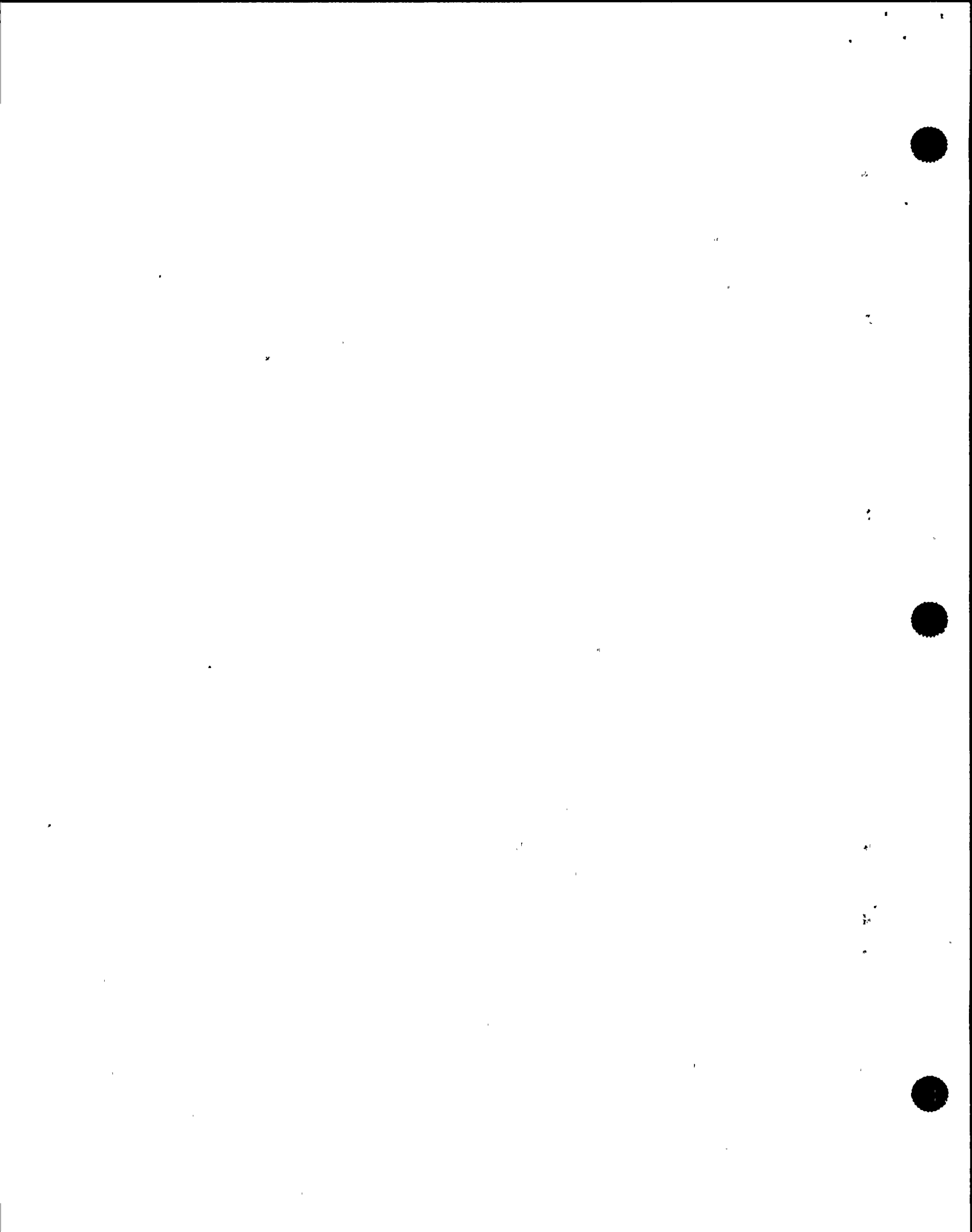
9 MR. JENSEN: Okay, I'll try --

10 MR. CONRAN: Did you say is NRC reviewing their
11 position?

12 MR. JENSEN: Right. Should we be looking at
13 upgrading the power supplies for control room
14 instrumentation. Given that it's been lost in several
15 events in the past and caused confusion to the operators,
16 should we consider or are we considering upgrading the
17 requirements to have this equipment powered by vital power?

18 MR. CONRAN: Well, I was of the impression that we
19 have reacted to incidents in the past where there was a need
20 to do that. In other words, there was a very large effort
21 after the TMI accident to reexamine the question of control
22 room design, including instrumentation. I'm not aware of a
23 current effort to do that. It would be appropriate to look
24 at that question following an event like Nine Mile.

25 MR. JENSEN: Have you done any additional review



1 or consideration as a result of the Nine Mile 2 event? Have
2 you been involved in any staff analysis?

3 MR. CONRAN: No, not at all.

4 MR. JENSEN: What about in the review of the
5 instrumentation in Reg Guide 1.97 for post-accident
6 monitoring?

7 MR. CONRAN: You mean have I ever been cognizant
8 in the review of -- No. I'm generally aware that there is a
9 category of equipment like that and it was defined and
10 specifications made of it in the aftermath of the TMI
11 accident.

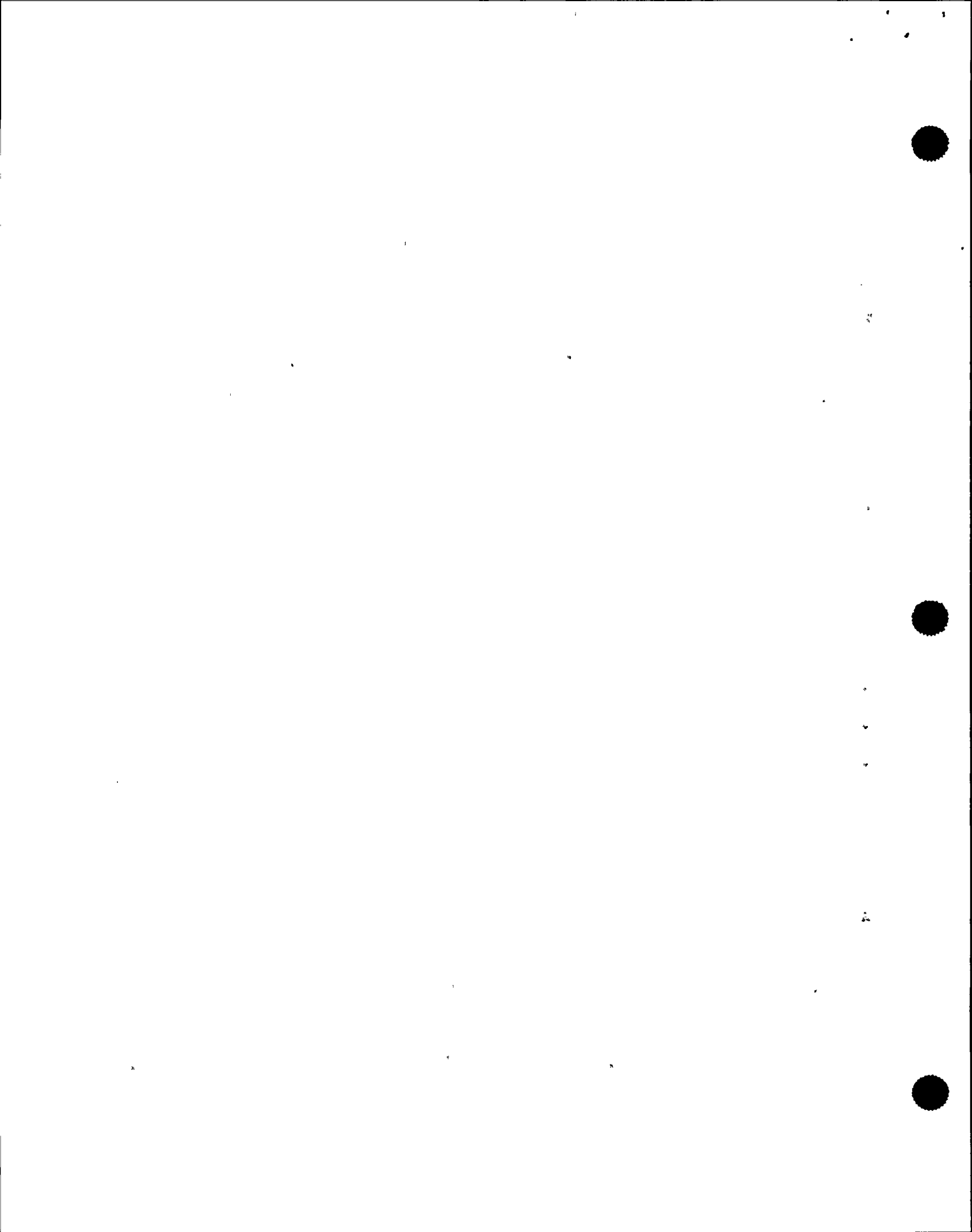
12 MR. JENSEN: But you weren't directly involved in
13 the review of what equipment should be on the list?

14 MR. CONRAN: No, I think not in the way that you
15 mean. I was involved in conversations about whether or not
16 all of that equipment was safety grade, for example, and it
17 did not have to be.

18 MR. JENSEN: What about control room
19 instrumentation at the power plants? Would you consider
20 that to be safety-related or not safety-related.

21 MR. CONRAN: I think all of it is not. That
22 instrumentation that is relied on to respond to design basis
23 events would have to be safety-related.

24 MR. JENSEN: Would the other equipment be
25 important to safety or not important to safety?



1 MR. CONRAN: I think it would be important to
2 safety but not safety-related.

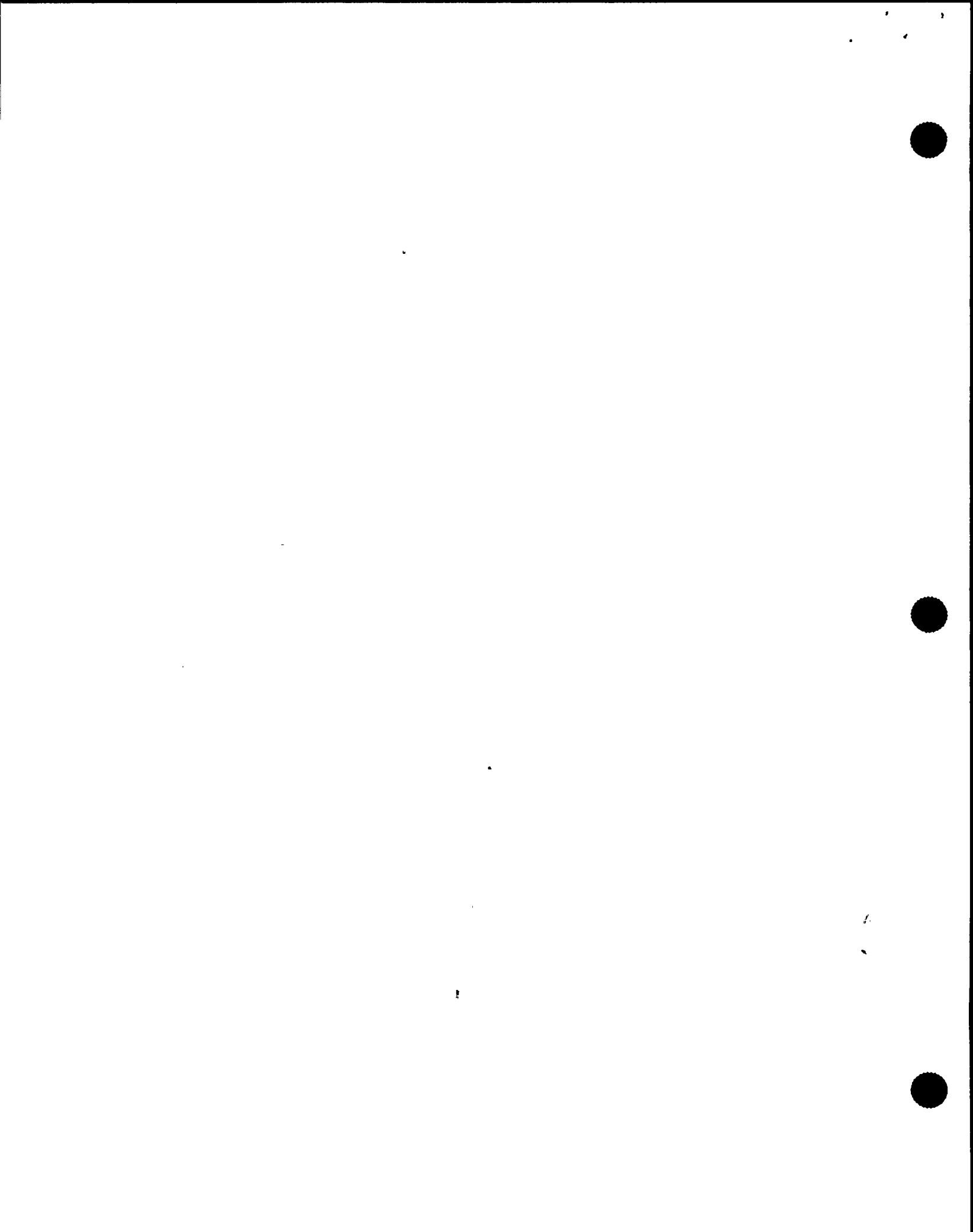
3 MR. JENSEN: Okay. What about in particular rod
4 position indication, instrumentation that would sense
5 whether the control rods were inserted in the core or not?

6 MR. CONRAN: I believe that falls in the category
7 of important to safety but not safety-related. It's
8 addressed in regulatory guidance but it's not the kind of
9 instrumentation that has to be safety-related.

10 MR. KAUFFMAN: You're talking about the
11 requirements. Do you think those requirements are
12 reasonable?

13 MR. CONRAN: I don't have a reason to question
14 them. I think if there is any consequence, adverse
15 consequences, that flow from that it's because for example a
16 licensee might consider that if something is not safety-
17 related it can fairly well be forgotten or it doesn't have
18 to have much emphasis, much maintenance emphasis, much
19 safety emphasis. I think there is some residuum of that
20 feeling.

21 If problems arise because -- I think what's
22 significant is that some of the control room equipment is
23 not classified as safety-related but that the equipment that
24 is important to safety but not safety-related is thought of
25 and maintained in a way that is not commensurate with its



1 degree of importance to safety.

2 That concept is important in NRC's regulations,
3 that for equipment that is important to safety should be
4 given attention and designed and maintenance and operation
5 to a degree that is commensurate with its importance to the
6 overall safety of the system.

7 MR. KAUFFMAN: So something important to safety,
8 you would expect to have the APM program where they follow
9 the recommendations?

10 MR. CONRAN: Exactly, would have maintenance,
11 would have quality assurance, it would be addressed in the
12 quality assurance program in some way but it would not have
13 the gold-plated, for example appendix B program.

14 MR. KAUFFMAN: And it wouldn't necessarily test
15 and surveil it?

16 MR. CONRAN: Oh, I don't think you necessarily
17 give away testing and surveillance because it was not
18 safety-related. Control rod indication is a pretty
19 important function.

20 MR. KAUFFMAN: If I told you I had an event where
21 a piece of equipment that was not safety-related, I'm not
22 quite certain whether it was important to safety or totally
23 nonsafety-related, that that failed and caused me to lose
24 all rod position indication, would you consider that
25 important?



1 MR. CONRAN: Yes. Our criteria in fact for
2 deciding safety classification category and what ought to be
3 done include considerations like is it relied on to perform
4 a safety-related function as identified in the regulations,
5 the several that I mentioned, can its failure degrade or
6 prevent the performance of one of the safety-related
7 functions, and I think that's what you're talking about.

8 MR. KAUFFMAN: Okay. For example, if I had rod
9 position indication that was on AC electrical source with a
10 backup battery and automatic swap-over to another AC source,
11 that would be a reasonable thing for me to do for an ITS
12 class component?

13 MR. CONRAN: Yes.

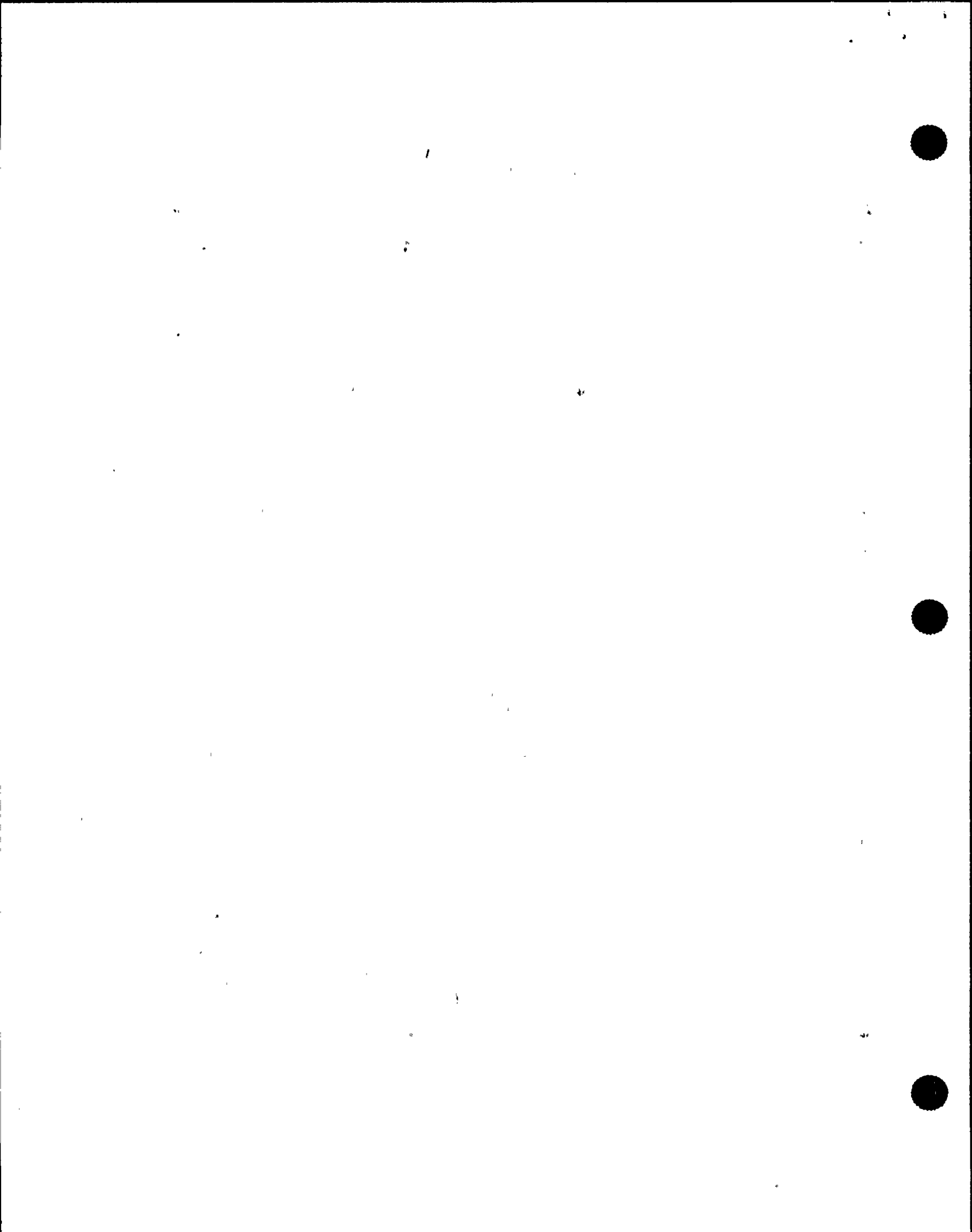
14 MR. JENSEN: What about neutron monitoring
15 equipment, the BWR, the average power range monitors and the
16 intermediate range monitors, should they be considered
17 safety-related or important to safety or not safety-related
18 or not important to safety?

19 MR. CONRAN: Well, let's see. Are they relied on
20 to shut down the reactor and keep it shut down?

21 MR. JENSEN: Yes.

22 MR. KAUFFMAN: They don't shut it down but they
23 let you know if it is or not.

24 MR. CONRAN: My reaction would be that they would
25 probably be safety-related.



1 MR. JENSEN: What about the indication in the
2 control room from these instruments? I didn't really mean
3 the safety functions of those rods in the core but the
4 instrumentation in the control room that the operator would
5 see to monitor the neutron level, should that be safety-
6 related?

7 MR. CONRAN: Well, not quite so directly relatable
8 but I think insofar as the manual scram function would have
9 to be performed, at least some of the instrumentation for
10 that purpose should probably be safety-related.

11 MR. JENSEN: So you would need safety-related
12 instrumentation to know if you had to perform the function
13 to scram the reactor.

14 MR. CONRAN: It seems to fit -- it seems to
15 satisfy that criteria but not necessarily all the
16 instrumentation in the control room.

17 MR. JENSEN: Just enough that he would need to
18 perform that function to scram the reactor manually.

19 MR. KAUFFMAN: Getting back to rod position
20 indication that's used in the EOPs and boilers to tell you
21 whether --

22 One of the criteria for initiating standby liquid
23 control which is the system used to shut down the reactor
24 under certain conditions, can I go back by extension and say
25 that I need to know rod position so that I know when to use



1 standby liquid control or do I say as long as I have my
2 APRMs and other neutron instrumentation I'm covered there
3 for being able to tell when I need to us standby liquid
4 control?

5 MR. CONRAN: I don't really know. I would say
6 that whatever you're asking about, if it is relied on to do
7 that function, then I think it would be safety grade, it
8 would be safety-related.

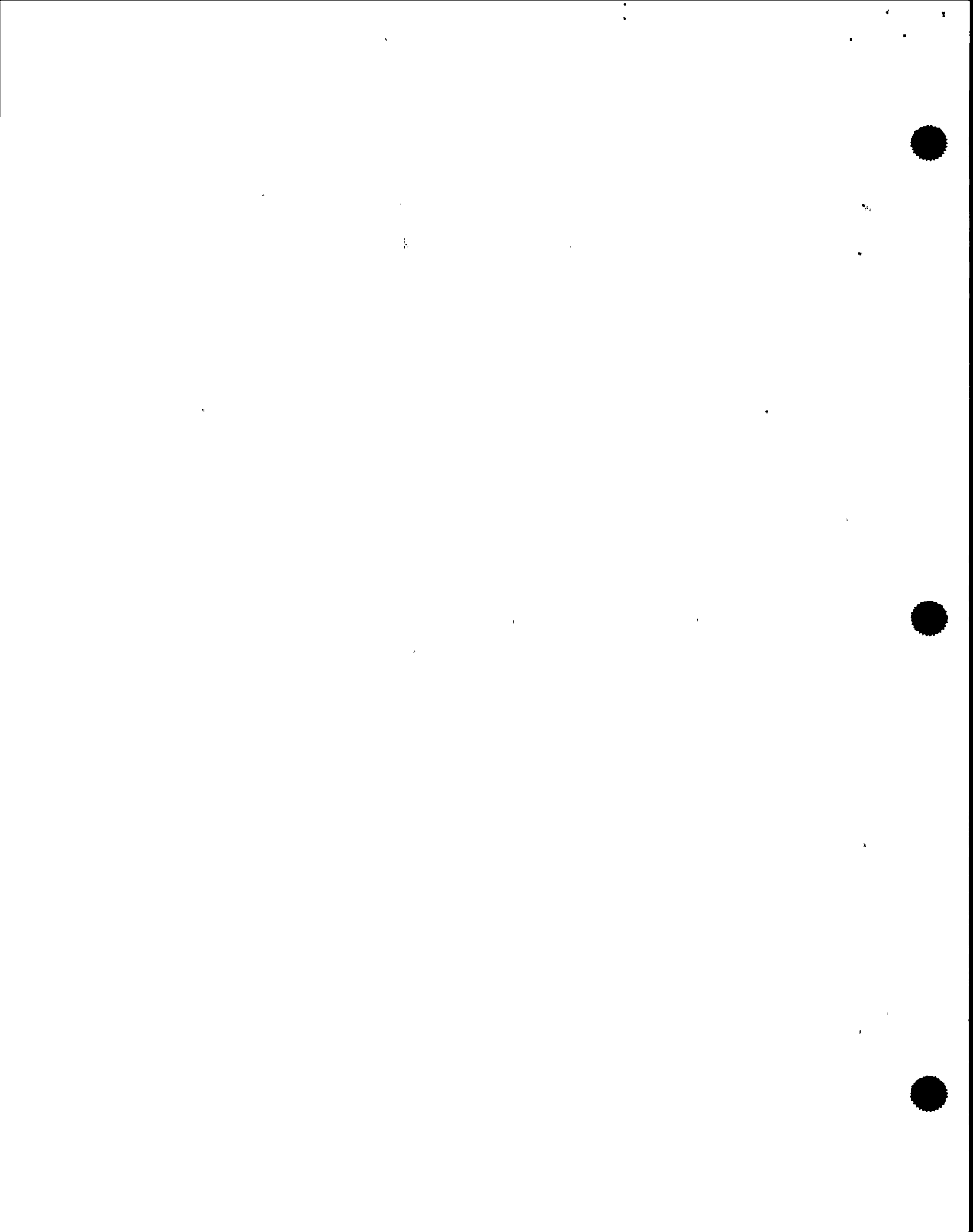
9 MR. KAUFFMAN: If I have my choice of two, the
10 rods or the flux instrumentation, as long as I have one that
11 is safety grade, I could call one safety grade and one
12 important to safety, and I would have it covered.

13 MR. CONRAN: Provided the one that is safety grade
14 satisfies all the requirements that are associated with
15 that, redundancy and diversity and that sort of thing.

16 What I was trying to think of, I think when you
17 asked the question you said if something was used to do that
18 and that's the point that I was trying to make.

19 It finally became clear in the TMI hearing that
20 that's the difference between what the intervenor or UCS was
21 saying or the staff was saying.

22 There was a lot of equipment that was used to
23 respond to the accident at Three Mile Island but it was not
24 necessary that all of that equipment -- that NRC now turned
25 around and makes sure that all the equipment that had been



1 used to respond to that accident was safety-related,
2 categorized as safety-related and qualified as safety grade.

3 It was still enough that if we made sure that the
4 equipment that must be relied on to do that function has to
5 be categorized safety grade and we make sure that it has all
6 the attributes that go along with the term safety grade.

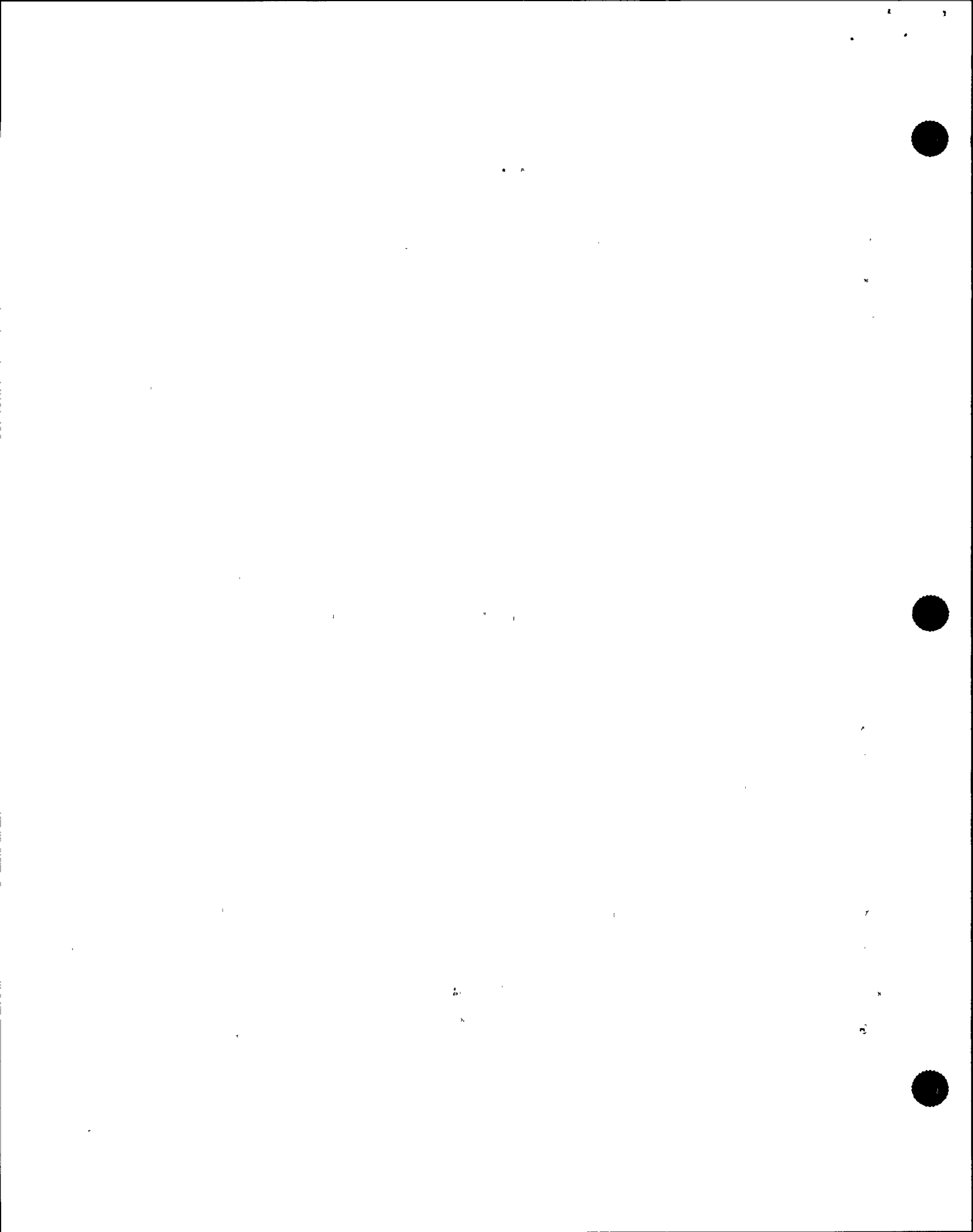
7 MR. JENSEN: So if we are going to rely on the
8 operator taking some important action to put the plant in a
9 safe condition, he should rely -- he should have safety-
10 related equipment that he should rely on or he could rely
11 on?

12 MR. CONRAN: Yeah. If we rely on the operator to
13 perform safety-related functions, then what he uses to do
14 that should be safety-related.

15 MR. KAUFFMAN: But not necessarily all of them,
16 just some of them.

17 MR. CONRAN: I said the ones that he relies on,
18 that he must be able to rely on to do that. That doesn't
19 mean that if they're all available but he might not choose
20 for some reason to use a nonsafety-related one. Certain
21 circumstances could arise where he might choose to do that,
22 but the one that must be relied on to perform that function,
23 that equipment should be safety-related.

24 MR. KAUFFMAN: If my EOP says check control rod
25 position indication, am I relying on that at that point or



1 am I relying on flux on -- if you can't tell where the rods
2 are, the flux instrument?

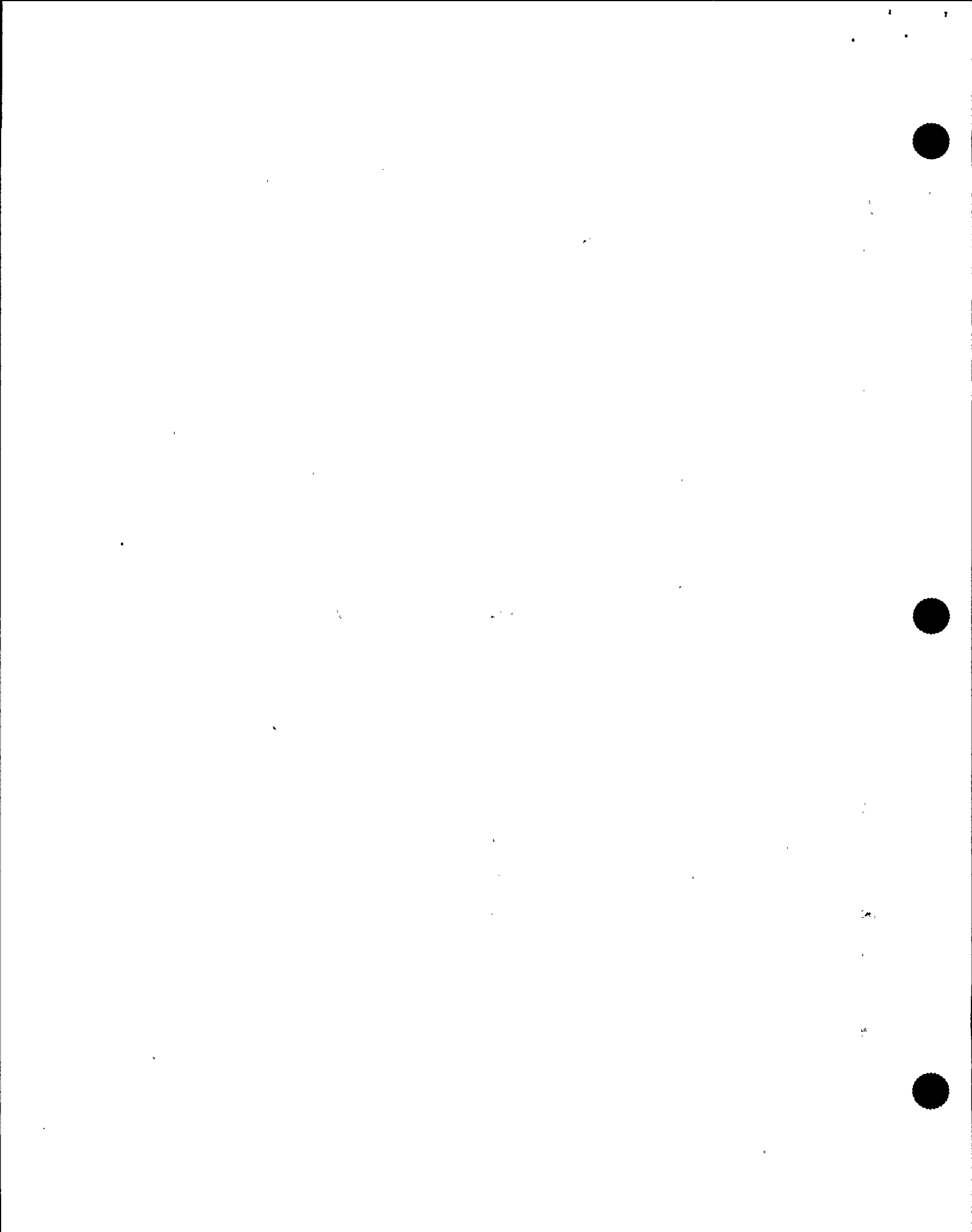
3 MR. CONRAN: Just as a general statement, I don't
4 think that all -- Everything that's referred to in the EOP
5 doesn't have to be safety-related and I don't know the kind
6 of detail that you're talking about but I know the criteria
7 and that is that an EOP or system design in whatever
8 context, if it is relied on to perform a safety-related
9 function then it should be considered safety-related, should
10 be classified safety-related and provided a safety grade.

11 Those two terms are used sort of interchangeably
12 but safety-related means the category and safety grade means
13 the quality level, the attributes. One is a categorization
14 and the other is quality levels and they refer to the same
15 thing.

16 MR. JENSEN: So if the operator was told to verify
17 that the control rods had inserted and, if not, to inject
18 boric acid, then this would be a safety-related function for
19 the control rod drive indication?

20 MR. CONRAN: But I don't know that you could tell
21 just from the procedure whether it should be safety-related
22 or not. It may take a deeper look.

23 Of all the different indications that he could
24 look at to try to make the decision that you're talking
25 about. At least one of them, if he relies on it to perform



1 a safety-related function, and I assume the one you're
2 talking about is to shut the reactor down, achieve and
3 maintain safe shutdown.

4 MR. JENSEN: Right.

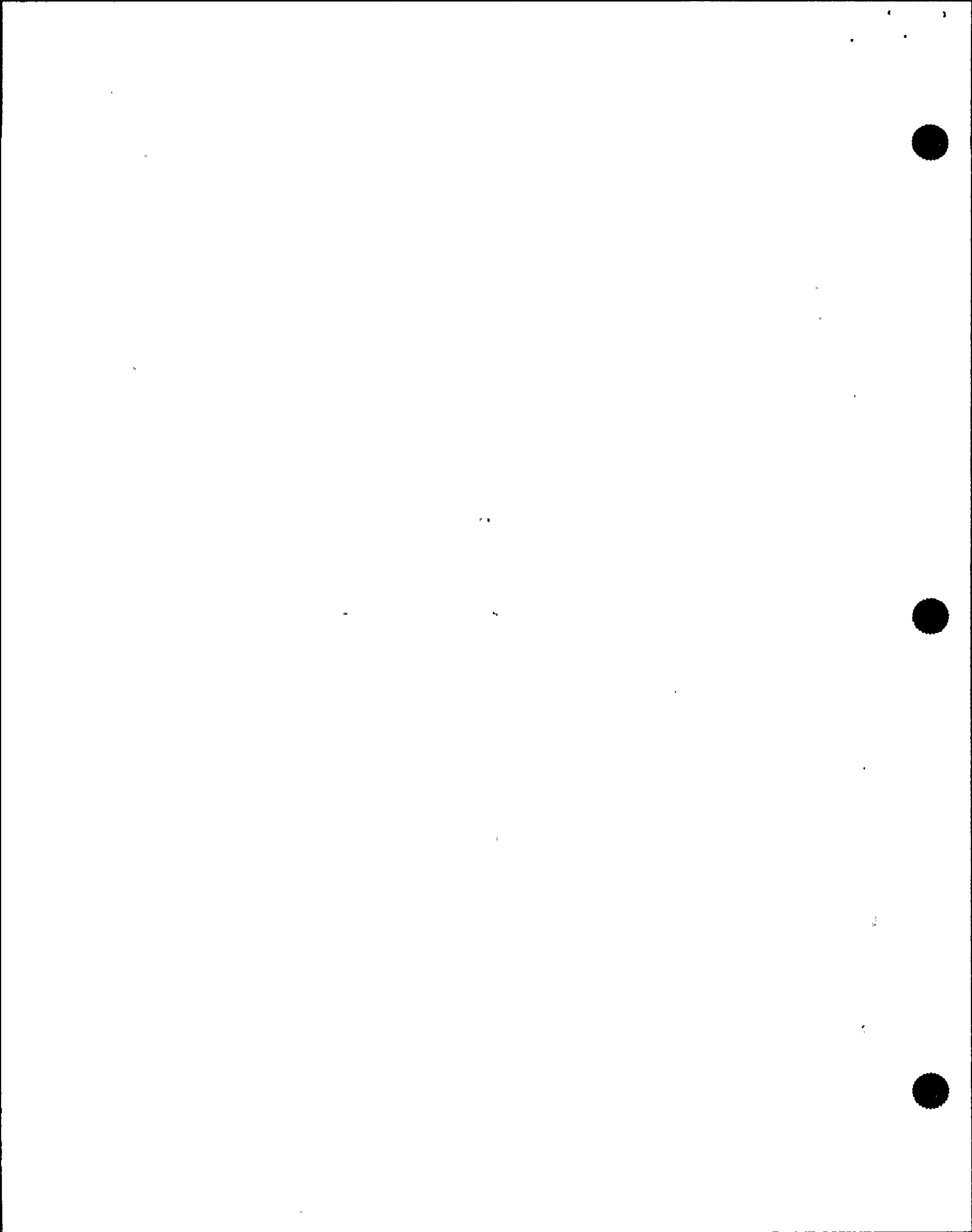
5 MR. CONRAN: Whatever he relies on, whatever the
6 design of the plant and the operator relies on to do each of
7 these should be safety-related.

8 MR. JENSEN: So the NRC should look at the total
9 instrumentation that he has and decide if he has enough
10 instrumentation to determine whether the reactor can be
11 safely shut down and maintained in a safe shutdown position.

12 MR. CONRAN: That's right, but first and foremost
13 the licensee should do that, the people who are responsible
14 for the design and the operation and fundamentally the
15 safety of the plant. They ought to do it first but we
16 should have in place a process that would check that.

17 MR. JENSEN: Right. After TMI, the TMI-2
18 accident, it was observed that the operator didn't have
19 enough instrumentation in the control room to tell them the
20 condition of the plant and it was required that plants
21 install a safety parameter display system to provide this
22 information on the post-accident conditions to the
23 operators.

24 Should this equipment in your view be considered
25 safety-related or important to safety or what?



1 MR. CONRAN: That's one where I have been involved
2 in one or another phase of the review so much that I know
3 that SPDS is not required to be safety-related.

4 That's not to say that it's not important and
5 useful. Certainly it can be used by the operator for a lot
6 of good purposes but it's not what is relied on to perform
7 the three safety-related functions.

8 MR. JENSEN: This is an off-the-wall question and
9 it came from the idea that airplanes when they crash they
10 have a black box that tells the final story of what
11 happened.

12 The question is should reactors also have some
13 kind of safety-related equipment to maintain and store
14 safely what went on during the event so that people later
15 can pull it out and analyze it and find out what happened?

16 MR. CONRAN: That's not a bad idea but I think
17 it's not for making post-accident investigations convenient
18 or easy. It's not one of the safety-related functions.

19 MR. JENSEN: Did I -- If you've been involved in
20 the review of EOPs -- I think I may have asked you that --
21 the emergency operating procedures.

22 MR. CONRAN: Not as a primary reviewer. Some EOPs
23 come through the CRGR and -- The interest in the CRGR
24 context is not like the primary reviewer at the regulatory
25 staff. I think maybe I should rephrase that.



1 We both have the common purpose and the principal
2 concern in the CRGR's mind, as well as the program office
3 and staff, is that safety, the vital safety interest is
4 ensured.

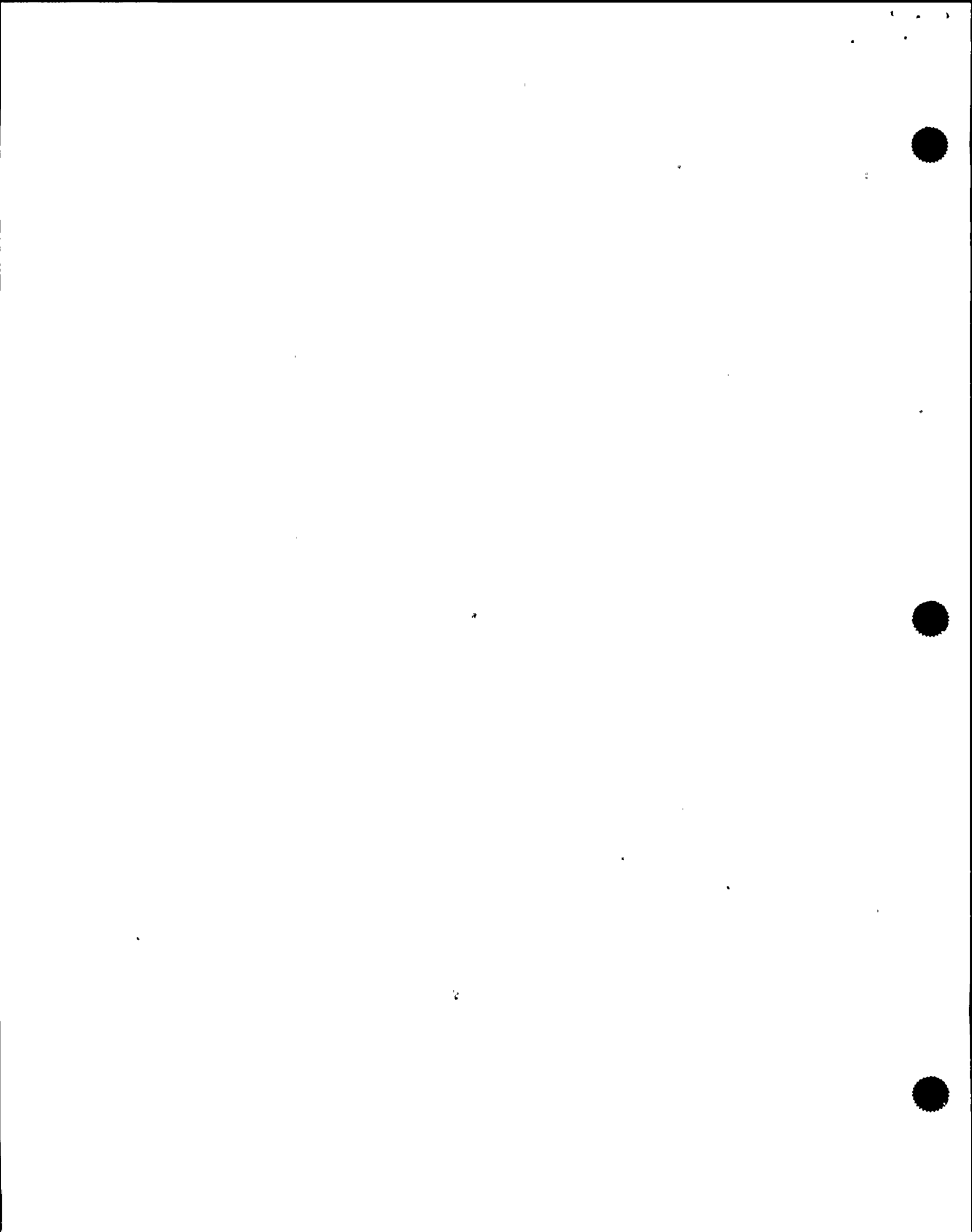
5 As long as that's not an issue then if you get
6 past the question of whether or not adequate protection is
7 involved, then the CRGR focus of attention is whether the
8 number of requirements, constituent requirements that make
9 up a new procedure are all needed and all justified -- do
10 you get the best bang for your safety buck in something new
11 that's proposed.

12 We've looked at EOPs in that context but not as a
13 primary -- The decision of whether or not the vital safety
14 interests was assured with or without this EOP had already
15 been addressed and resolved.

16 MR. KAUFFMAN: I take it you're talking here about
17 backfit.

18 MR. CONRAN: Yes.

19 MR. JENSEN: Does the staff in your view, have
20 they reviewed EOPs with the idea of determining the subset
21 of equipment that's required to perform the functions in the
22 EOPs to determine if there was enough equipment -- if enough
23 safety-related equipment is present to perform the EOPs, in
24 your opinion has the staff gone through that process and
25 gone through the steps and looked at the subset of safety-



1 related equipment to determine whether it was adequate or
2 not?

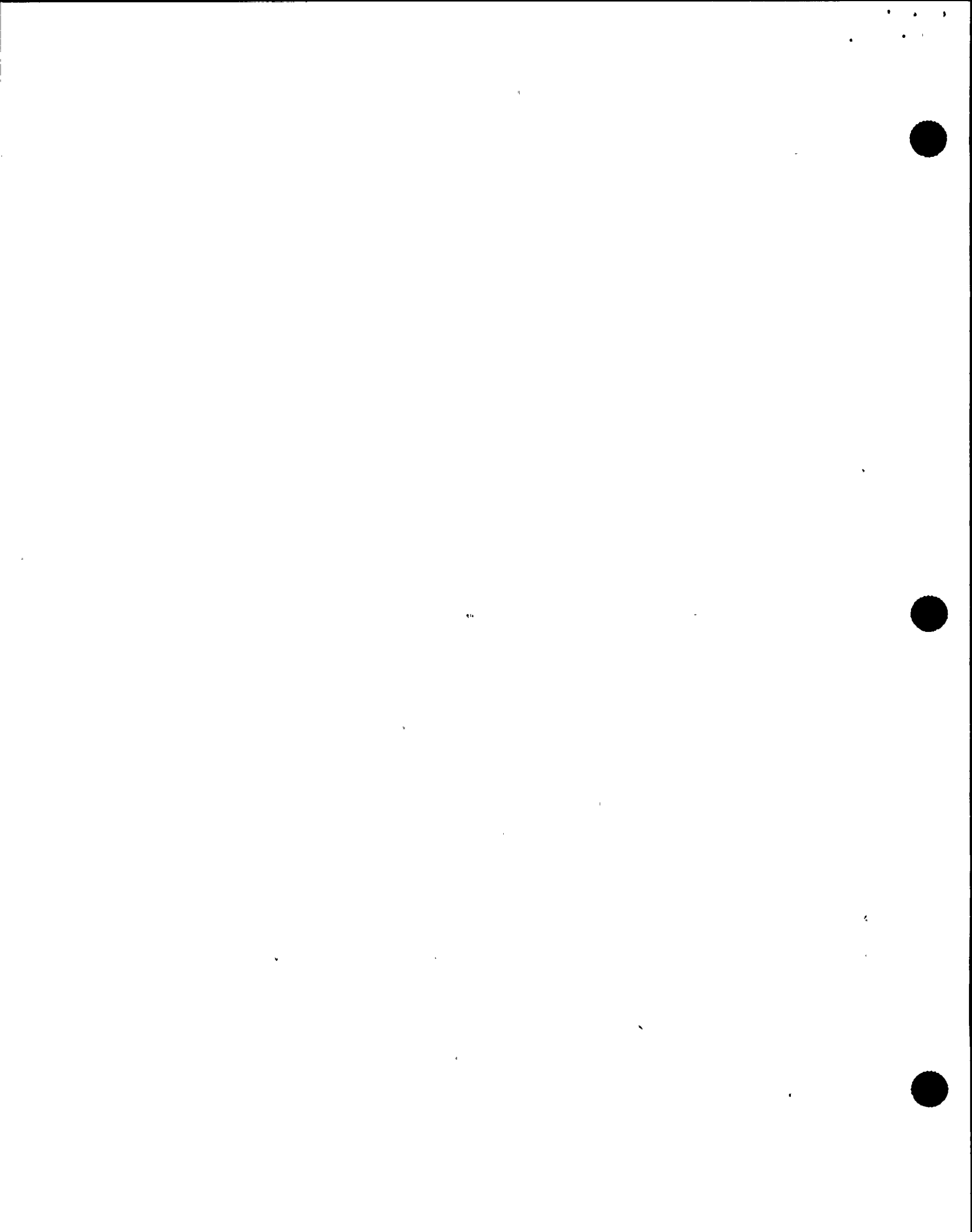
3 MR. CONRAN: I don't know but I don't have any
4 reason to think that they haven't.

5 The only knowledge I have about what goes on in
6 the staff's mind is I think there is still an unseemly
7 emphasis in some parts of the staff on this distinction
8 between safety-related and important to safety and I mean
9 the distinction the way that I mentioned some licensees
10 understand it that if it's not classified as safety-related
11 it's not of very great safety significance and it can be
12 regarded and treated in a regulatory fashion, much
13 differently and much less stringently than safety-related
14 stuff.

15 In some of the advance reactor work that's being
16 done, establishing criteria, design criteria and
17 requirements for the advance reactors, we've seen things com
18 through CRGR where the distinction is made in the old sense,
19 in the questionable sense, between safety-related and
20 important to safety or nonsafety -- between safety in
21 balance of plant, for example.

22 I think there is still a residuum of that attitude
23 even with the staff so I think it's probably true of
24 licensees as well. It dates from very far back.

25 I think it is an important part of the thinking of



1 a number of people who are involved in the nuclear reactor
2 enterprise, both in the staff and in the licensee community.

3 MR. JENSEN: What do you think the prevailing feel
4 is?

5 You mentioned that some staff members don't
6 believe that the staff should look at any equipment that's
7 not safety-related, I believe.

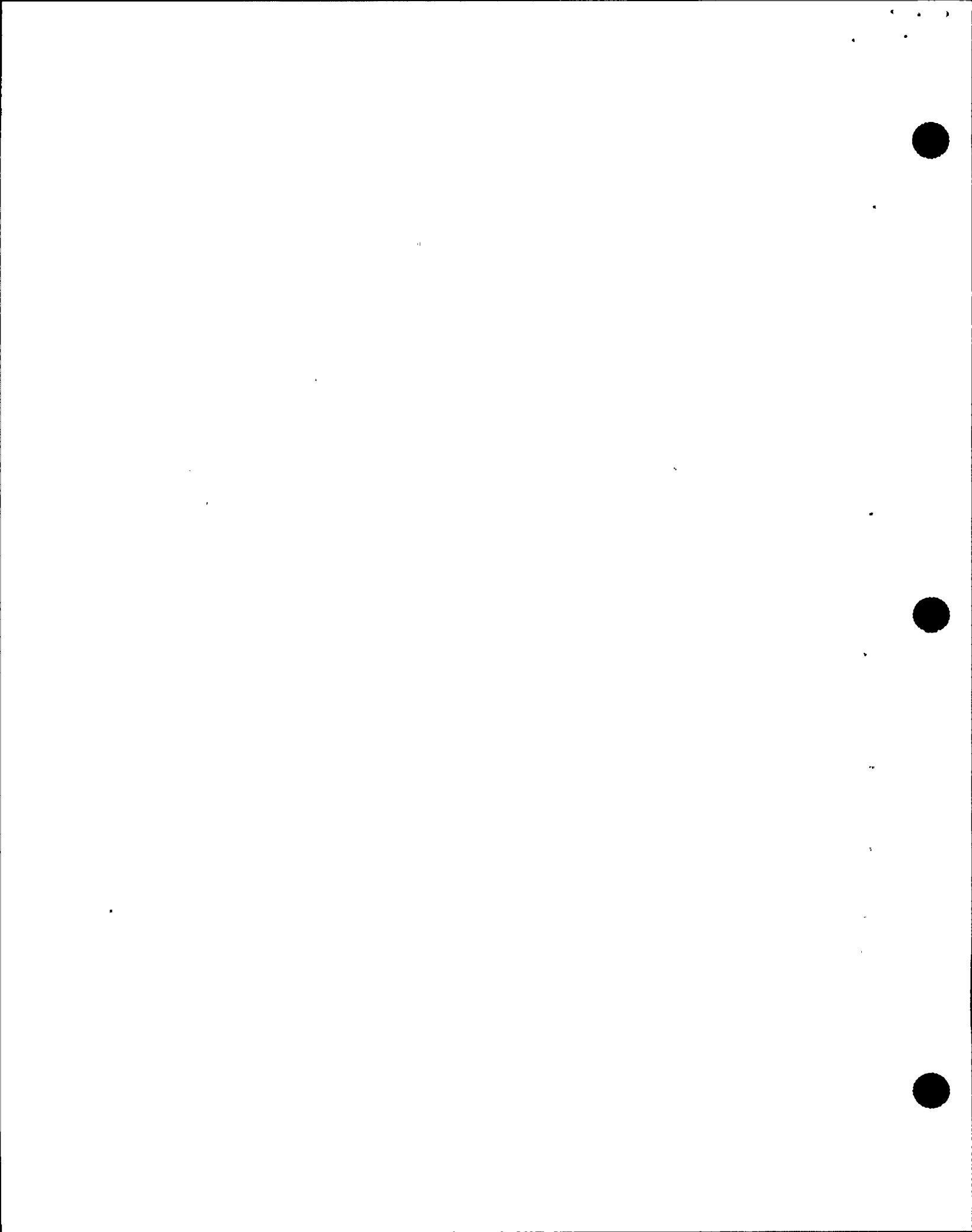
8 What would you say the prevailing view is of the
9 NRC or CRGR or what's our current policy?

10 MR. CONRAN: I think the prevailing view is that
11 there is considerable safety significance of things that are
12 important to safety but not safety-related.

13 I think PRAs, for example, have shown the safety
14 importance of balance of plant systems and taken as a whole
15 I've heard it said in some cases that there's more safety
16 importance to important to safety but not safety-related
17 systems than in some of the safety-related -- things that
18 aren't classified safety-related.

19 I think there is a recognition by most of the
20 staff and probably most of the licensees that because
21 something is not categorized as safety-related that you
22 can't ignore it and I don't mean just in the legal
23 regulatory sense. I mean from the safety viewpoint you
24 can't ignore it. It's very important.

25 MR. JENSEN: Should we go back maybe and take a



1 look at some of these plants that we've looked at maybe
2 before and maybe not looked in enough detail at the
3 equipment that's not safety-related? Should we go back and
4 take another look at them perhaps and make sure that ---

5 MR. CONRAN: I don't think we have to do things
6 differently than we do it.

7 There was a time when I was very concerned that we
8 should take a lot more initiative in doing the kind of
9 things that you're talking about but I've come to the view
10 that the incident response capability that we put in place
11 is a good way of getting indications of where we should
12 focus efforts.

13 I guess if there is anything that I thought should
14 be done additionally, it's just that we could do more, I
15 think, to clarify for everyone officially as an agency
16 position what is meant by, what is encompassed by the term
17 important to safety but not safety-related and lay to rest
18 beyond any doubt the fact that because of the safety
19 significance of that category of equipment that NRC has a
20 perfect right to regulate in that area and that we have high
21 expectations and we expect licensees to understand that and
22 act accordingly.

23 Just because a thing is not safety-related does
24 not mean that you can ignore it or, if not completely ignore
25 it, not think about or not recognize its safety significance



1 and act accordingly in the day-to-day operation of your
2 plant.

3 MR. JENSEN: Well, Jim, I think you summed things
4 up pretty well.

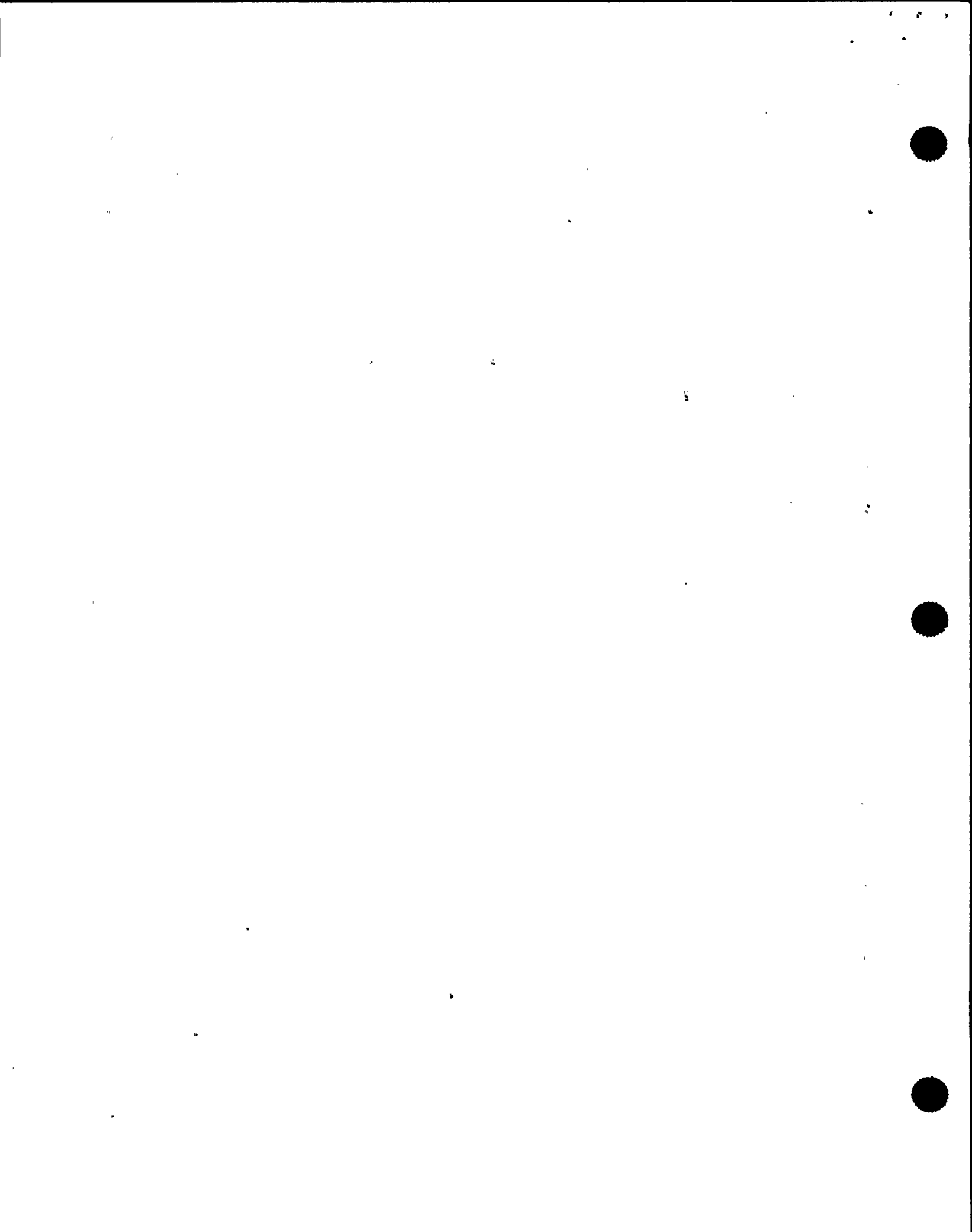
5 MR. KAUFFMAN: I'll play devil's advocate here and
6 I'll imagine that I'm a member of the press and I ask you --
7 you just told me that this ITS equipment is very -- has
8 considerable safety importance, to use your words, and you
9 say we're trying to get the licensees to understand we can
10 regulate it.

11 I would get from that the impression that maybe we
12 haven't regulated it heavily in the past and I was wondering
13 if you could give me some examples of some important to
14 safety equipment that we have put rules and regulations and
15 new requirements on and that we are regulating.

16 MR. CONRAN: I would think we've regulated the
17 bejeebers out of it and there's an awful lot of --

18 First of all, there are regulations that address
19 the important to safety but not safety-related equipment.
20 There's reams of guidance, regulatory guidance and standard
21 review plans and that sort of thing that address important
22 to safety but not safety-related equipment.

23 If there is something left to do, I think it's --
24 The NRC I think understands what has to be done in that area
25 and has gone about doing it.



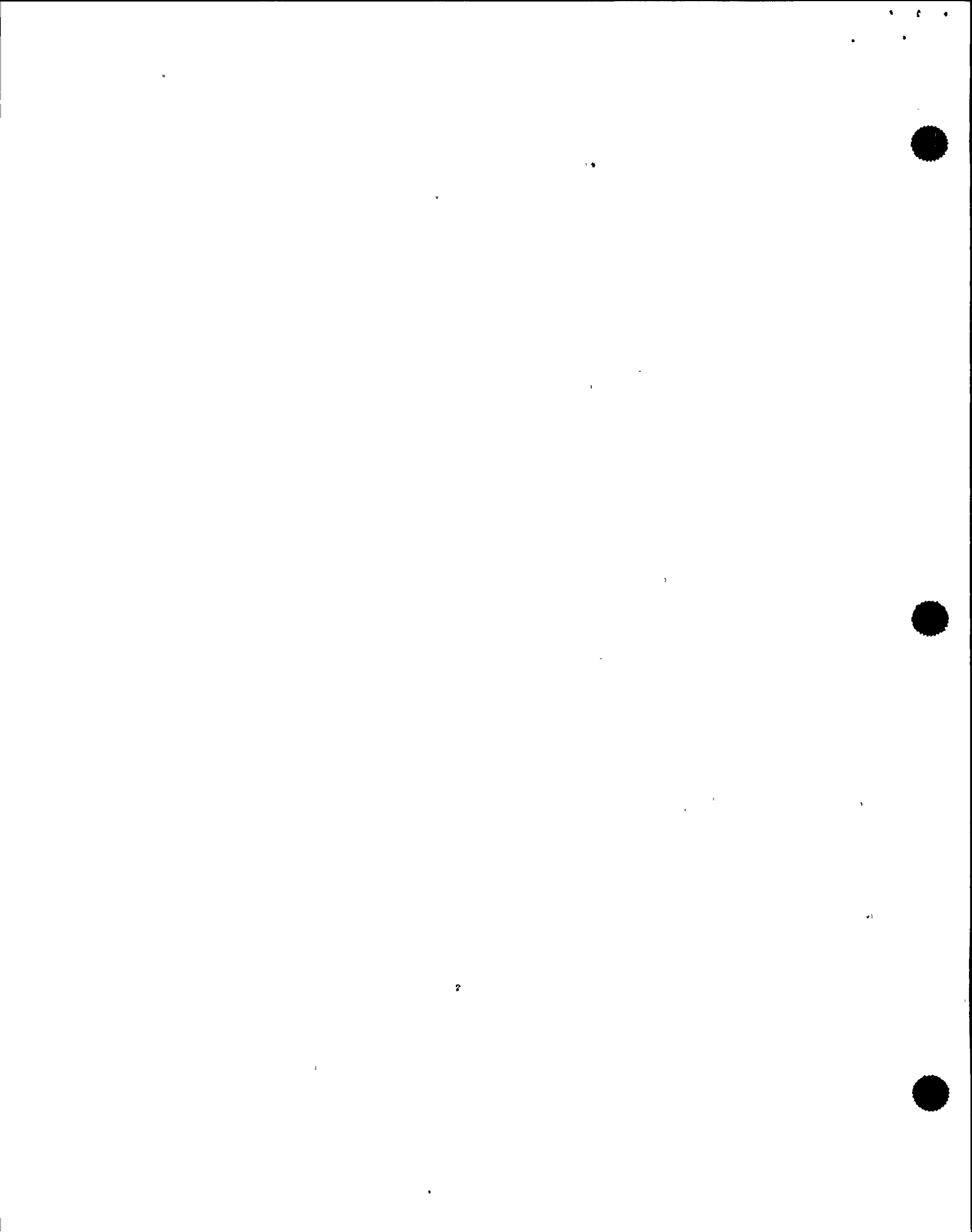
1 If there remains something to done that we should
2 take an initiative on, it's making sure that licensees
3 agree, that they understand these terms the way we do
4 because in one context or another over the years we've come
5 head on into the situation where it was clear that the
6 licensee or an applicant didn't understand our regulations
7 and what is minimally required for safety the same way that
8 NRC does.

9 I think in the Shoreham hearing an estimate was
10 made of the amount of staff review effort that was dedicated
11 to important to safety but not safety-related. It was made
12 by the assistant director who had direct cognizance over
13 review of auxiliary systems and the kind of things that are
14 not safety-related generally.

15 His estimate after he had surveyed other parts of
16 the regulatory staff and operation was that at least 25
17 percent of staff review effort on reviewing a new
18 application was applied to this category of equipment by
19 inspection.

20 You can pick up many reg guides that address
21 things that are not categorized as safety-related.

22 An entire part of our regulations, part 20, does
23 not address safety-related, that is, design basis accident
24 conditions. It's day-to-day operations. It's effluent
25 levels, very low effluent levels, and the concern is the



1 cumulative fact of constant very low radiation levels that's
2 important to see.

3 That's one of the things, one of the areas we have
4 to regulate in to get reasonable assurance of undue risks in
5 the operation of the facilities so an entire section of the
6 10 CFR addresses things that are not safety-related.

7 A very large amount of our regulatory guides and
8 the overall standard review plan address important to safety
9 but not safety-related equipment.

10 So from the NRC viewpoint, I've always thought
11 that at least among ourselves we have our hands around the
12 problem.

13 What I have been concerned about in the past is
14 whether or not the licensees to the high degree that I think
15 they should agree with that, what percentage of them agree.

16 I once suggested that we send out a generic letter
17 that said here are the definitions that the staff observe,
18 safety-related, important to safety, safety grade, do you
19 agree with these.

20 Well, we didn't send the letter out but that's the
21 kind of thing that I think could be done. That's simplistic
22 but to make sure that licensees as a whole, as a group, that
23 there is a meeting of the minds on this contract that there
24 is with the agency and the licensees that allows people to
25 operate plants, if we at least all understand the language



1 of the contract the same way, and I think we could do more
2 to assure that that was true to the degree that everyone,
3 even someone like me, would feel very comfortable with it.

4 That's not to suggest that I think we're in such
5 bad shape in that regard that it's dangerous or that we -- I
6 think some work could be done in that.

7 We could have a reg guide, for example, that
8 identified things important to safety but not safety-
9 related.

10 We have a reg guide that identifies safety-related
11 stuff, that takes the function in the regulations and gives
12 a list of equipment or systems that perform those functions.

13 That same kind of thing could be done and for
14 those people who still don't have exactly the understanding
15 of regulations and their implications that I do or that the
16 agency does, that might be helpful.

17 MR. JENSEN: All right, we will end the interview.
18 Thank you, Jim.

19 (Whereupon the matter concluded at 5:00 p.m.)
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REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission

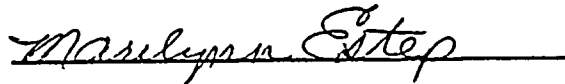
in the matter of:

NAME OF PROCEEDING: IIT Interview of Bob Conran

DOCKET NUMBER:

PLACE OF PROCEEDING: Bethesda, Maryland

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.



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