

ORIGINAL
OFFICIAL TRANSCRIPT OF PROCEEDINGS

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

Title: Interview of: Charles Ader
(Closed)

Docket No.

LOCATION: Bethesda, Maryland

DATE: Monday, September 9, 1991 **PAGES:** 1 - 39

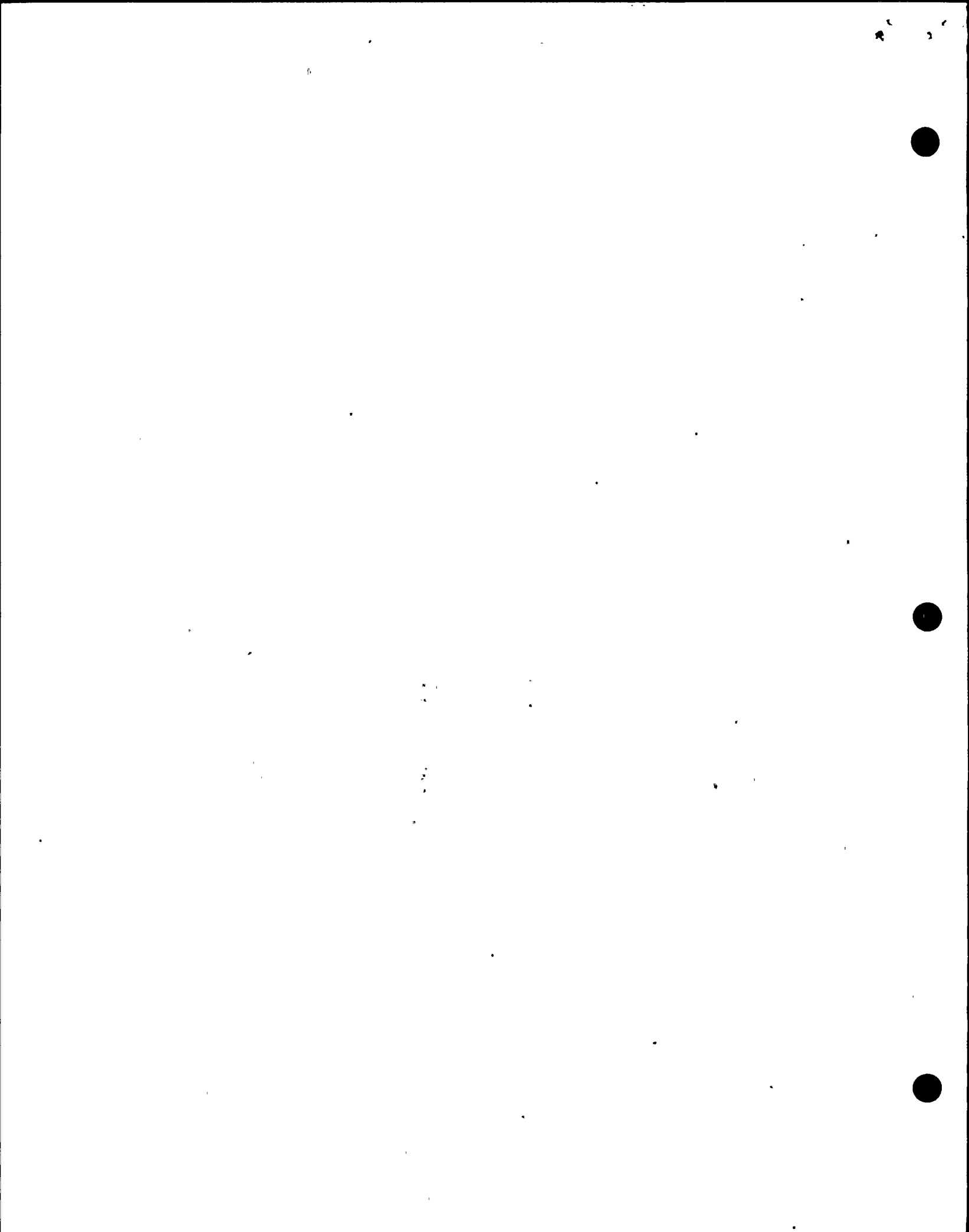
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1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

3 ***

4 INCIDENT INVESTIGATION TEAM
5

6 -----X

7 INTERVIEW OF: :

8 CHARLES ADER :

9 [CLOSED] :

10 -----X

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12
13 U.S. Nuclear Regulatory Commission
14 Conference Room 100
15 The Woodmont Building
16 8120 Woodmont Avenue
17 Bethesda, Maryland
18

19 Monday, September 9, 1991
20

21 The above-entitled interview commenced in closed
22 session at 11:04 O'clock a.m.
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PARTICIPANTS:

MICHAEL JORDAN, IIT Team Member

RICHARD CONTE, IIT Team Member

BILL VATTER, IIT Tem Member

CHARLES ADER, Interview

LYNN ESTEP, Court Reporter



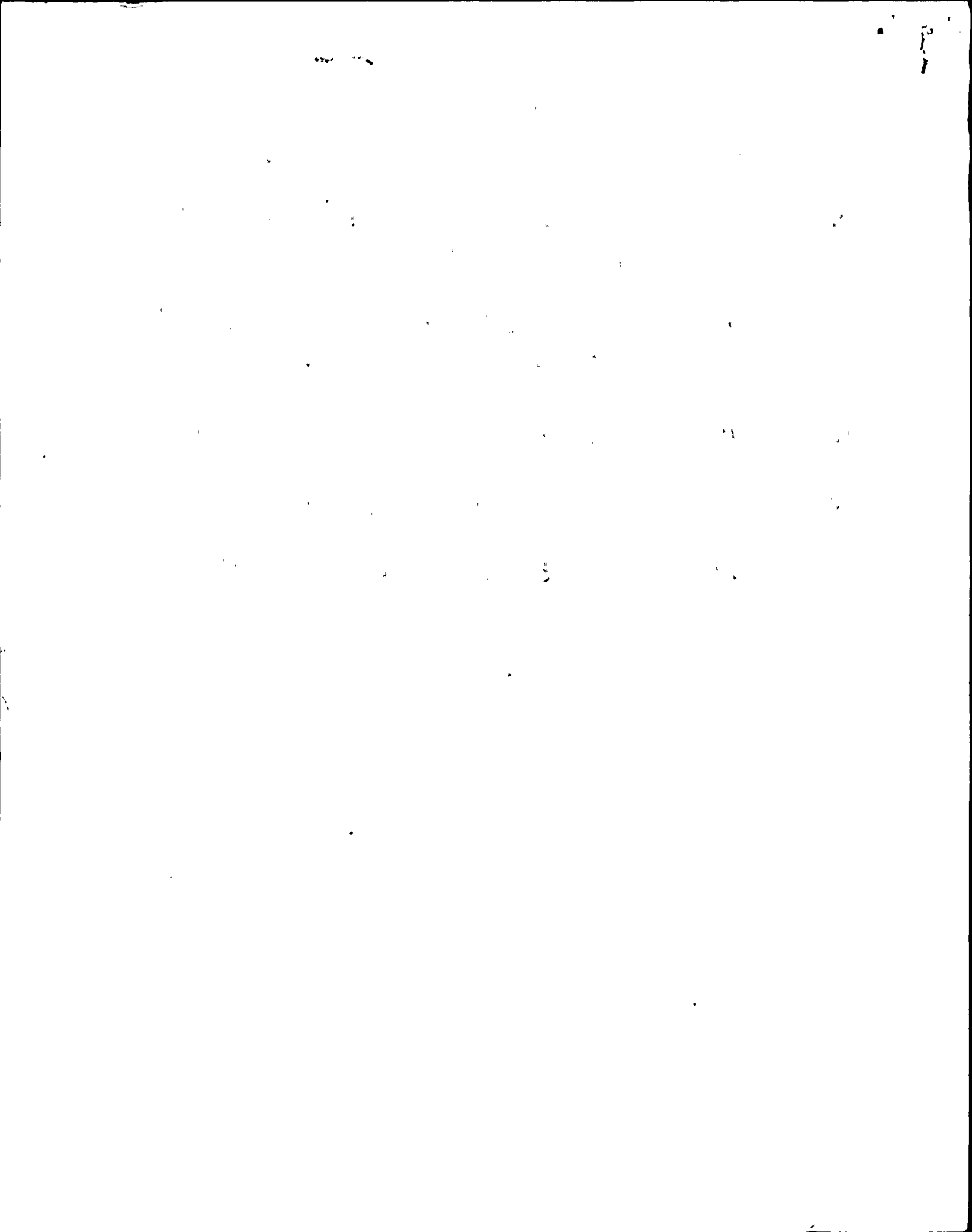
ADDENDUM

<u>Page</u>	<u>Line</u>	<u>Correction and Reason for Correction</u>
20	6	change "present" to "prevent" - incorrect word in transcript
22	12	"assistance" should be "system" - incorrect word in transcript.
26	14	"THE WITNESS" should be "MR. ADER"
27	22	"implantation" is misspelled - "implementation"
30	17	"Bill Brach" is the correct spelling

Date 10/17/91

Signature

Charles E. Ader



1 P R O C E E D I N G S
2 INTERVIEW OF CHARLES ADER

3 [11:04 O'clock a.m.]

4 MR. JORDAN: My name is Mike Jordan. I'm with the
5 NRC, out of Region III.

6 MR. VATTER: Bill Vatter. I'm from INPO.

7 MR. CONTE: I'm Rich Conte, from Region I.

8 MR. ADER: Charles Ader, with Research

9 MR. JORDAN: What branch, what section?

10 MR. ADER: Severe Accident Issue Branch, the
11 Branch Chief.

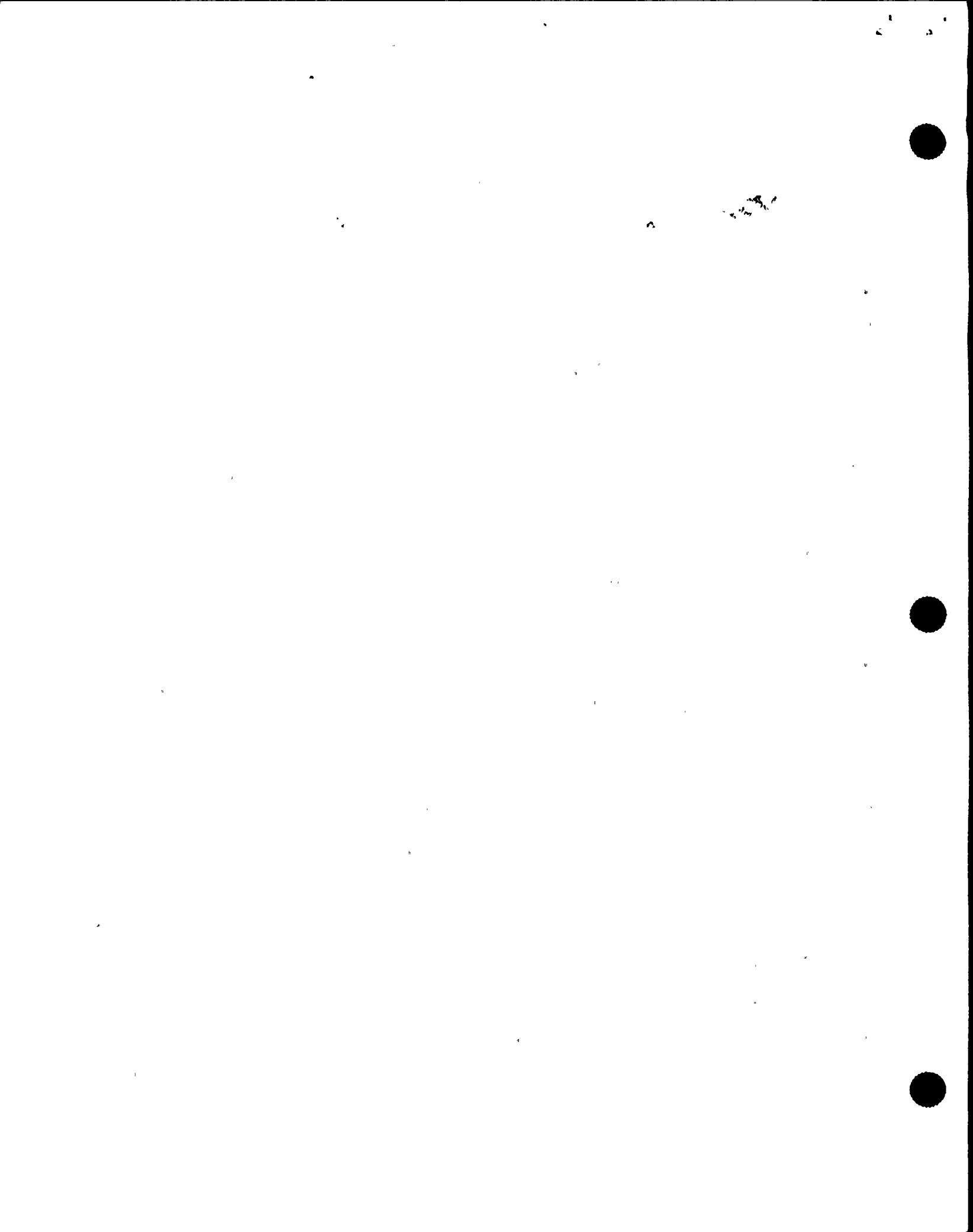
12 MR. JORDAN: Okay.

13 MR. CONTE: You have some documents here. Why
14 don't you explain what you're bringing to us?

15 MR. ADER: Okay. I've been requested to bring a
16 copy of the Final Maintenance Rule, as published, which is
17 the thin copy, out of the Federal Register; and have been
18 requested to bring the SECY paper that went to the
19 Commission with staff recommendation on the Maintenance
20 Rule.

21 It was an April 26th paper, SECY 91-110, which
22 contains the staff recommendation on the need for a rule,
23 contained an evaluation of, I believe it was five criteria
24 the Commission had laid out for the need for the rule.

25 Excuse me. Four criteria the Commission had laid out in an



1 earlier staff requirements memo, criteria that they wanted
2 the staff to address.

3 MR. CONTE: Okay. We'll get into the details --

4 MR. ADER: Okay.

5 MR. CONTE: -- positions, what have you, a little
6 later.

7 MR. ADER: It also included two alternate
8 maintenance rules per Commission direction and a regulatory
9 analysis to support the rules.

10 MR. CONTE: Okay. Why don't you keep that in
11 front of you in case you need to refer to it?

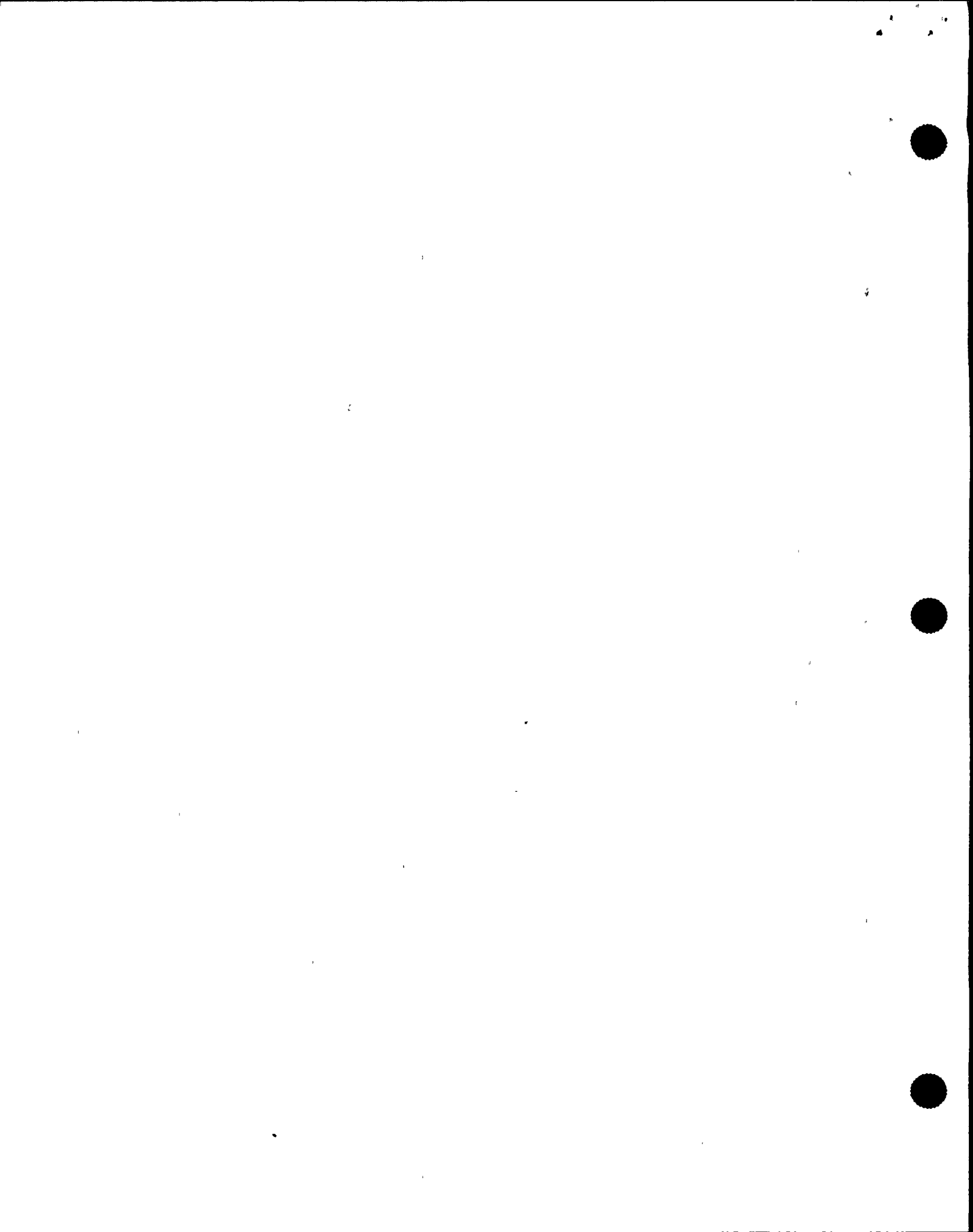
12 MR. ADER: Okay.

13 MR. CONTE: By way of introduction, would you
14 describe, if any, your involvement in the event of August
15 13th at Nine Mile 2, with respect to the site area
16 emergency?

17 MR. ADER: I had no involvement.

18 MR. CONTE: Okay. Have you had any involvement,
19 we're aware you've had some involvement with the maintenance
20 rule, but how about the Salem ATWS actions from the generic
21 letter 8328 with respect to "important to safety"
22 classification and the handling of vendor-related
23 information?

24 MR. ADER: I had no involvement in the Salem ATWS
25 event.



1 I had some involvement at the Commission level in
2 the "important to safety."

3 MR. CONTE: Okay. Very good.

4 All right. Well, before we get into the
5 maintenance topic, let's talk about the maintenance, the
6 "important to safety" issue.

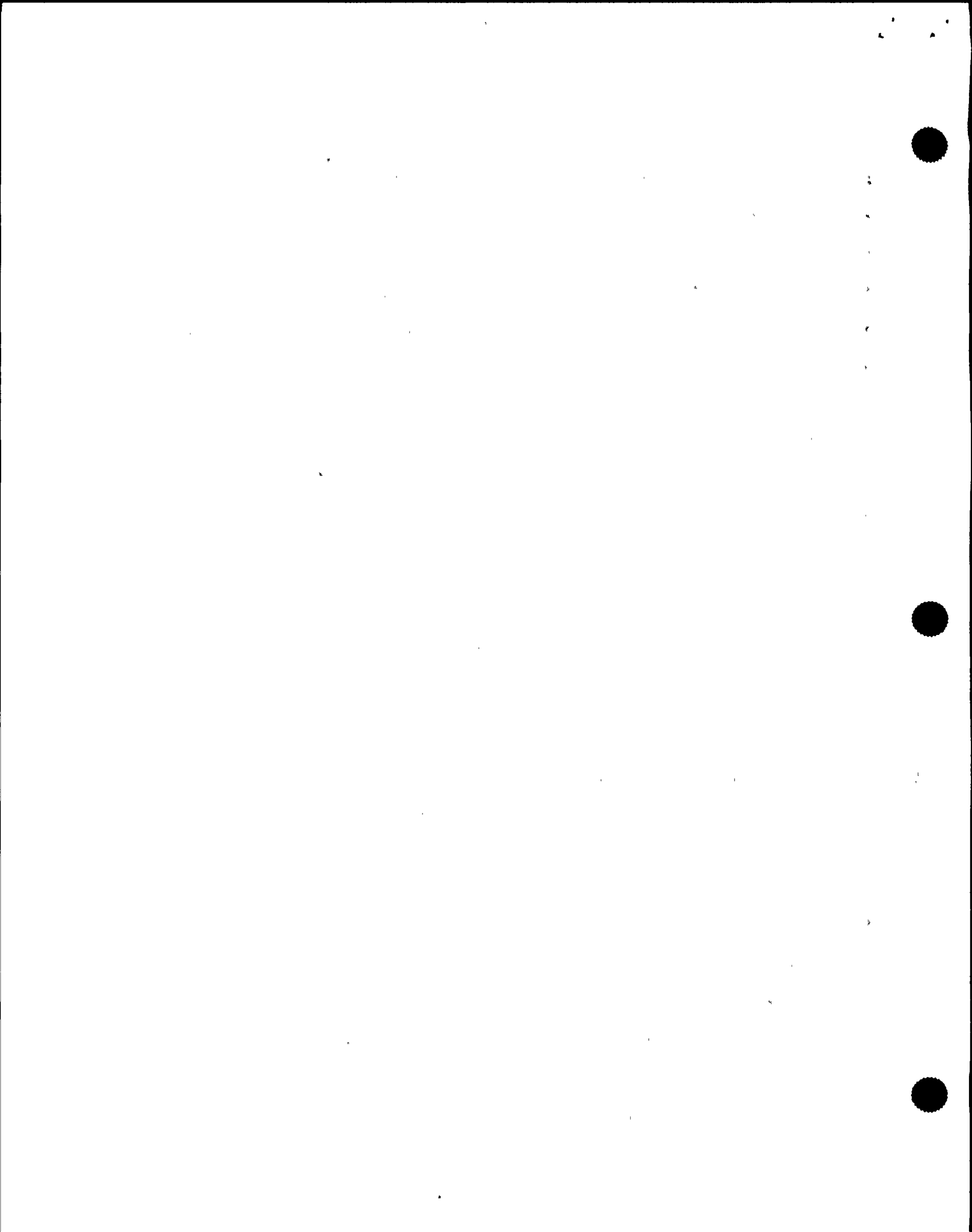
7 Shortly after the TMI-2 accident, the NRC staff
8 encouraged licensees to create a third classification
9 scheme, if you will, "important to safety," a kind of grey
10 area between "safety-related" and "non-safety-related,"
11 keeping in mind that "safety-related" is a subset of the
12 "important to safety" concept.

13 Could you briefly explain your involvement, or
14 your involvement at this point, with "important to safety"?

15 MR. ADER: Okay. And this is sometime back, so
16 based on memory, hopefully I'll get most of the information
17 correct.

18 I was on Commissioner Roberts' staff for the
19 Commission, and there were, I believe, two staff papers that
20 came up resolving, or with recommendations to resolve the
21 "important-to-safety," "safety-related" issue. It was one
22 that's been in a lot of controversy, I think both inside and
23 outside the agency.

24 The first, well, the papers were staff
25 recommendations. The first one came up. The Commission



1 sent it back to the staff to rework. I'll back up a step.

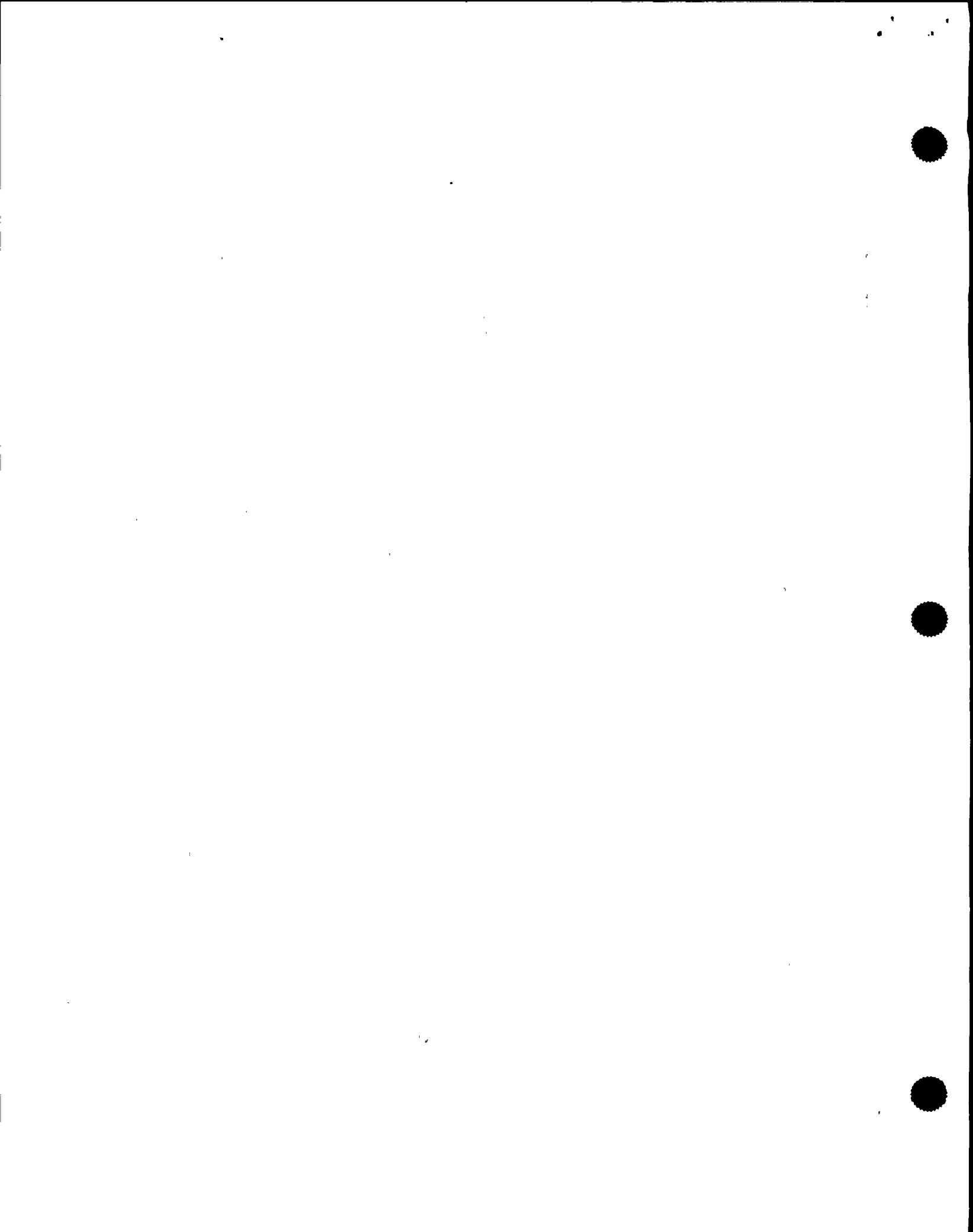
2 The issue came up, I believe it was on Shoreham,
3 also. And the Commission, in an action on Shoreham, came up
4 with a, I won't say a definition, but they said they had
5 understood "important-to-safety" was a broader set than
6 "safety-related," but that it should be only those,
7 "important-to-safety" would only be for that equipment
8 systems that had explicitly been called out as such with
9 requirements that had been explicitly put on that equipment.

10 To be correct, you'd need to go back and look at
11 the Commission decision on that. They had asked staff to
12 send up papers resolving the issue through possibly
13 rulemaking. They got one paper up. It didn't follow the
14 guidance that the Commission had given. Sent it back, asked
15 for a second paper. It came up. And I think, at that time,
16 there was a feeling that it wasn't an issue as much, and the
17 paper was never acted on.

18 MR. CONTE: Okay. For the record, I believe the
19 first paper that you're talking about was a 1985 SECY paper.
20 We have a copy of that.

21 We also have a copy of the 1986 SECY paper which
22 was the rework on the '85 SECY paper. And that's our record
23 stops.

24 And I guess what you're telling us is that they
25 made a, the staff made a re-proposal to the Commission, and



1 really never went any further, because there was no need to
2 make a rule?

3 MR. ADER: Well, there was, it was controversial
4 at the time. There was different views on it. I don't
5 think there was a clear view by the Commission as a majority
6 where they wanted to go.

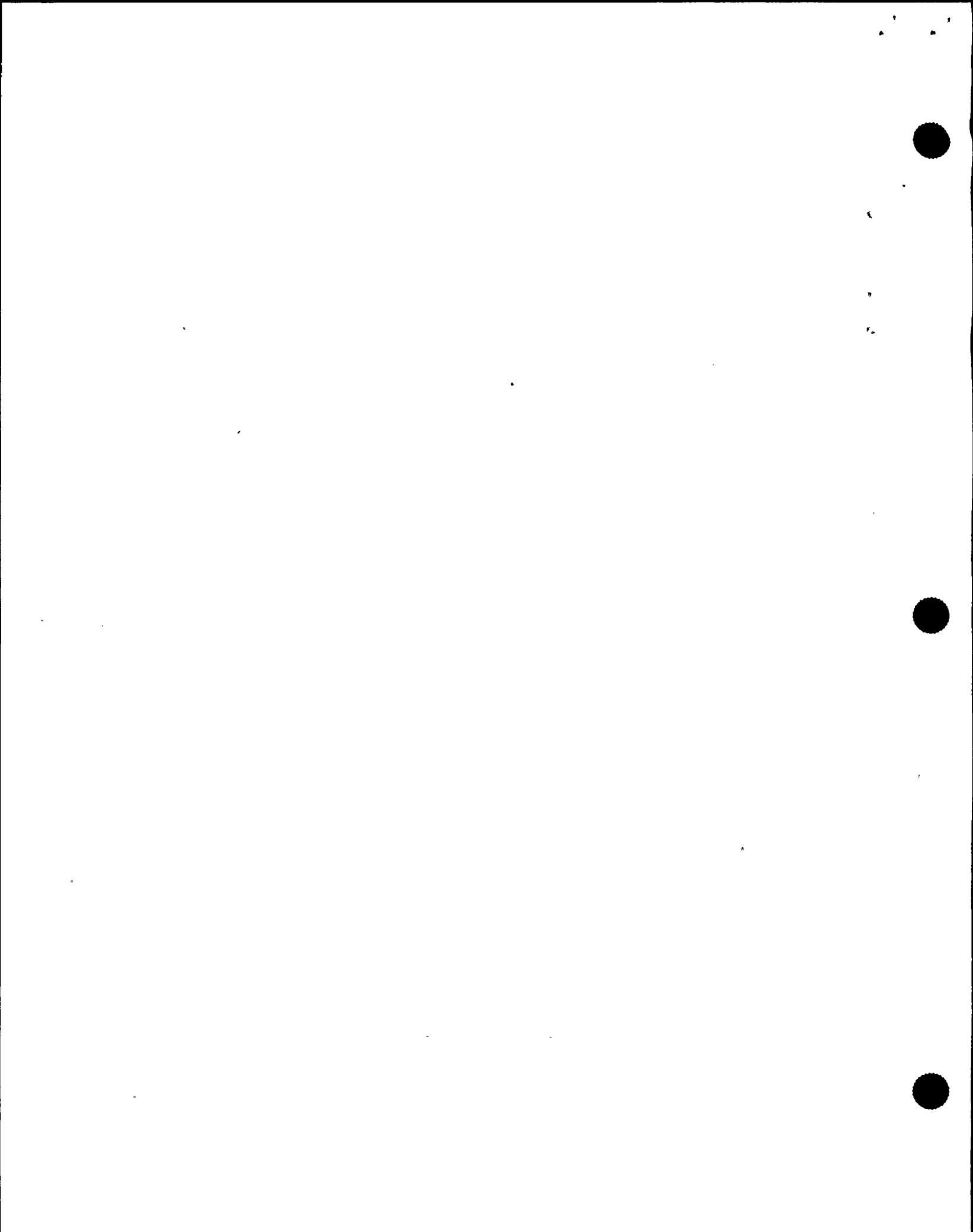
7 Several Commissioners did vote on the paper. I
8 think it was 86 or 164 or something like that.

9 MR. CONTE: Something like that. Do you remember
10 what the vote was to reject it, or accept it?

11 MR. ADER: I don't remember the context of the
12 paper, so whether it was an approval or not -- .
13 Commissioner Roberts put out a vote sheet. There had been
14 some work between the offices to try to come up with a
15 majority position. Commissioner Roberts' office took the
16 lead, put out the vote sheet with his views on the subject
17 and the direction staff ought to go. As I remember,
18 Commissioner Carr voted, and I don't remember there being
19 three votes.

20 MR. CONTE: Do you remember what the Roberts view
21 was, and do you share that view, or is it different? I
22 guess we're primarily interested in your view. But could
23 you explain either, or all of the above?

24 MR. ADER: It's been long enough I don't remember
25 what was in the vote sheet.



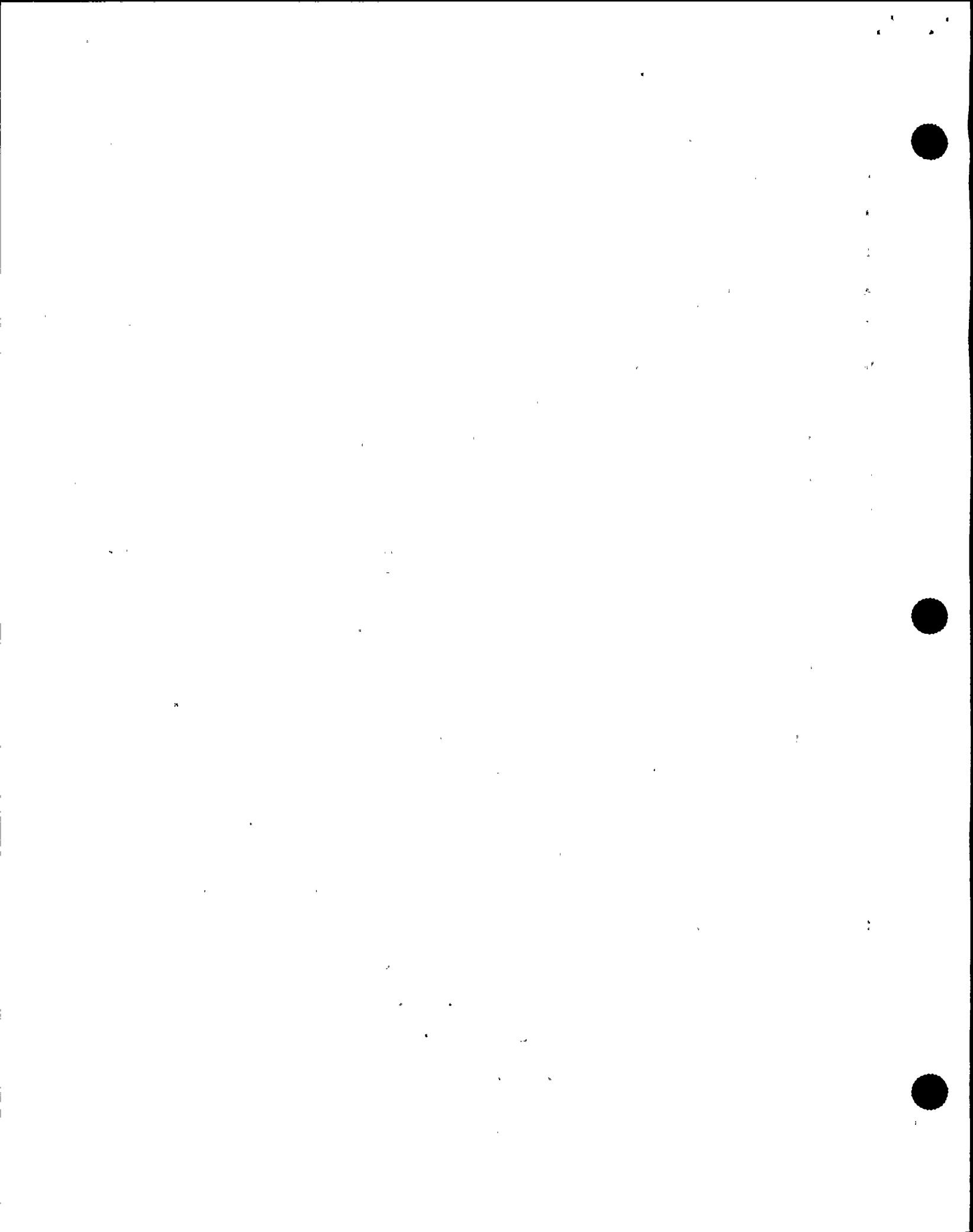
1 MR. CONTE: Okay.

2 MR. ADER: To try to give you the flavor of it the
3 best I can, it was agreeing that there may be areas that
4 "important-to-safety" is a broader set. One of the
5 controversies is whether they were identical or whether they
6 were different. Some took the position that "safety-
7 related" and "important-to-safety" were the identical set.
8 Others took the view that "important-to-safety" was a
9 broader set.

10 I think the view was that generally, in the
11 regulation where we've had requirements for different things
12 outside of "safety-related," we've generally said that. And
13 there was confusion. There were various places that used
14 the words "important-to-safety" and there was places that
15 used the words "safety-related." They were not always used
16 consistently. And the view was they ought to go back and
17 clean up the regulations using the words "safety-related,"
18 not using the words "important-to-safety," but trying to
19 explicitly say where there are requirements for equipment,
20 not safety-related, but we had requirements for, we should
21 be very explicit about what that was.

22 MR. CONTE: Was at least that action taken to
23 clean up the regulations with respect to using the
24 terminology "important-to-safety" versus "safety-related"?

25 MR. ADER: That would have come out of the



1 Commission action. The Commission did not act, did not act
2 on the paper, so the overall --

3 MR. CONTE: Fell by the wayside?

4 MR. ADER: -- cleanup did not happen.

5 MR. CONTE: All right.

6 MR. ADER: There may have been situations where
7 individual ones have been cleaned up. I don't remember if
8 the Part 21, 55(e) changes. I think it may have been
9 changed in there. I believe it was.

10 MR. CONTE: Several years ago, at least as a
11 member of the NRC staff, I had gotten the word that I was
12 discouraged from using the term "important to safety."

13 Several years ago kind of dates back to shortly
14 after the 1986 SECY paper.

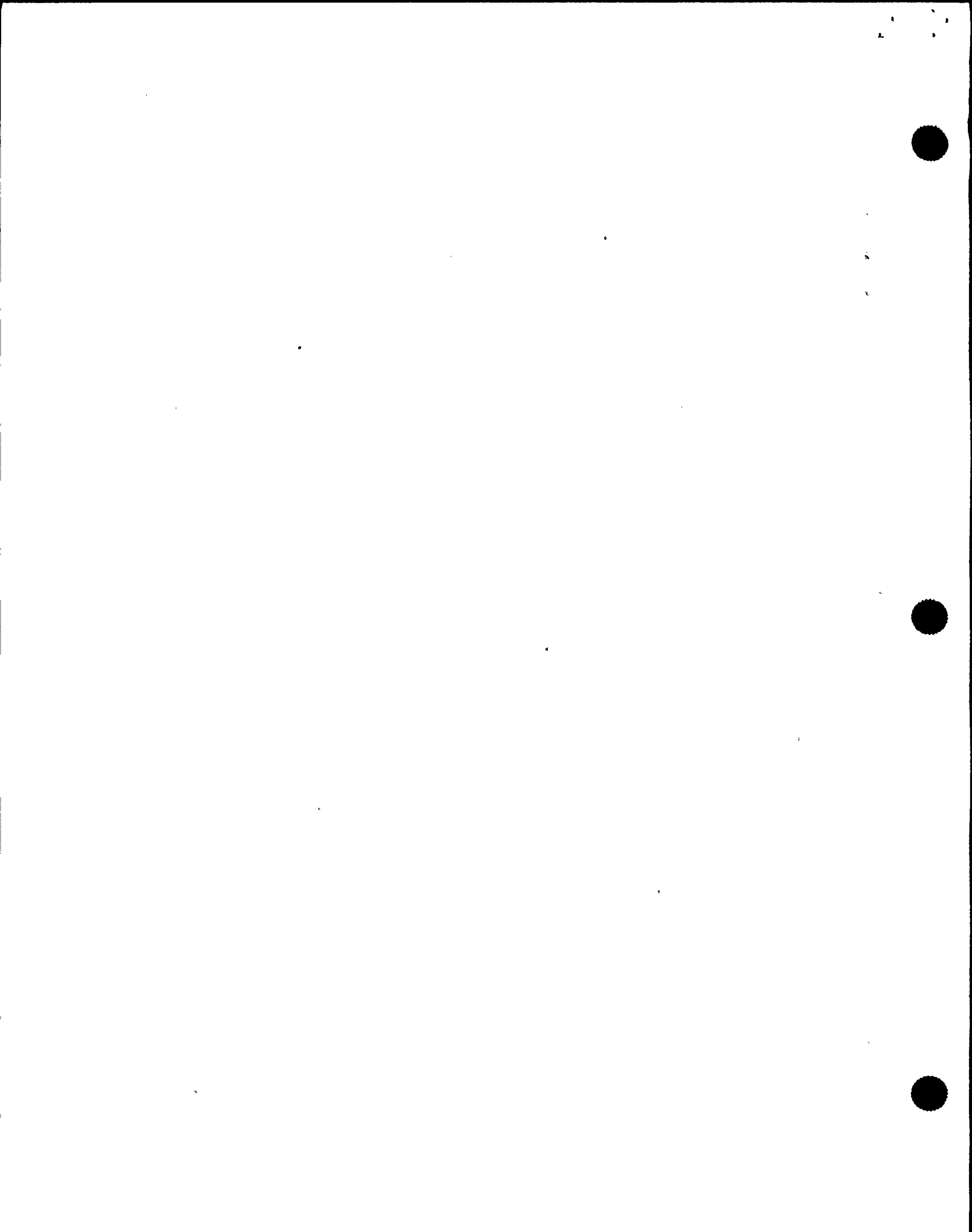
15 Was there anything official about that? Do you
16 remember any Commission discussions with the staff that the
17 Commission, at least verbally, directed the staff, or maybe
18 in writing --

19 MR. ADER: No.

20 MR. CONTE: -- not to use "important to safety"?

21 MR. ADER: I'm not aware of any verbal or written
22 direction.

23 I think, as I remember, the -- the tone of the
24 position the Commission was taking is that safety-related
25 was well defined. Everybody knew what that was.



1 Important to safety was not well defined, and
2 every time that was used, there was confusion, and his
3 recommendation, if I remember right, was that in the
4 revisions to the regulations, they ought to use "safety
5 related" where we meant that and take out the words
6 "important to safety."

7 Now, whether that -- that idea flowed down, where
8 you said you had gotten the word informally --

9 MR. CONTE: One last question in this area: I
10 don't want to belabor the point, but I understand that there
11 are different views on whether or not the subsets -- or the
12 set of important to safety and the subset safety related
13 were identical or not.

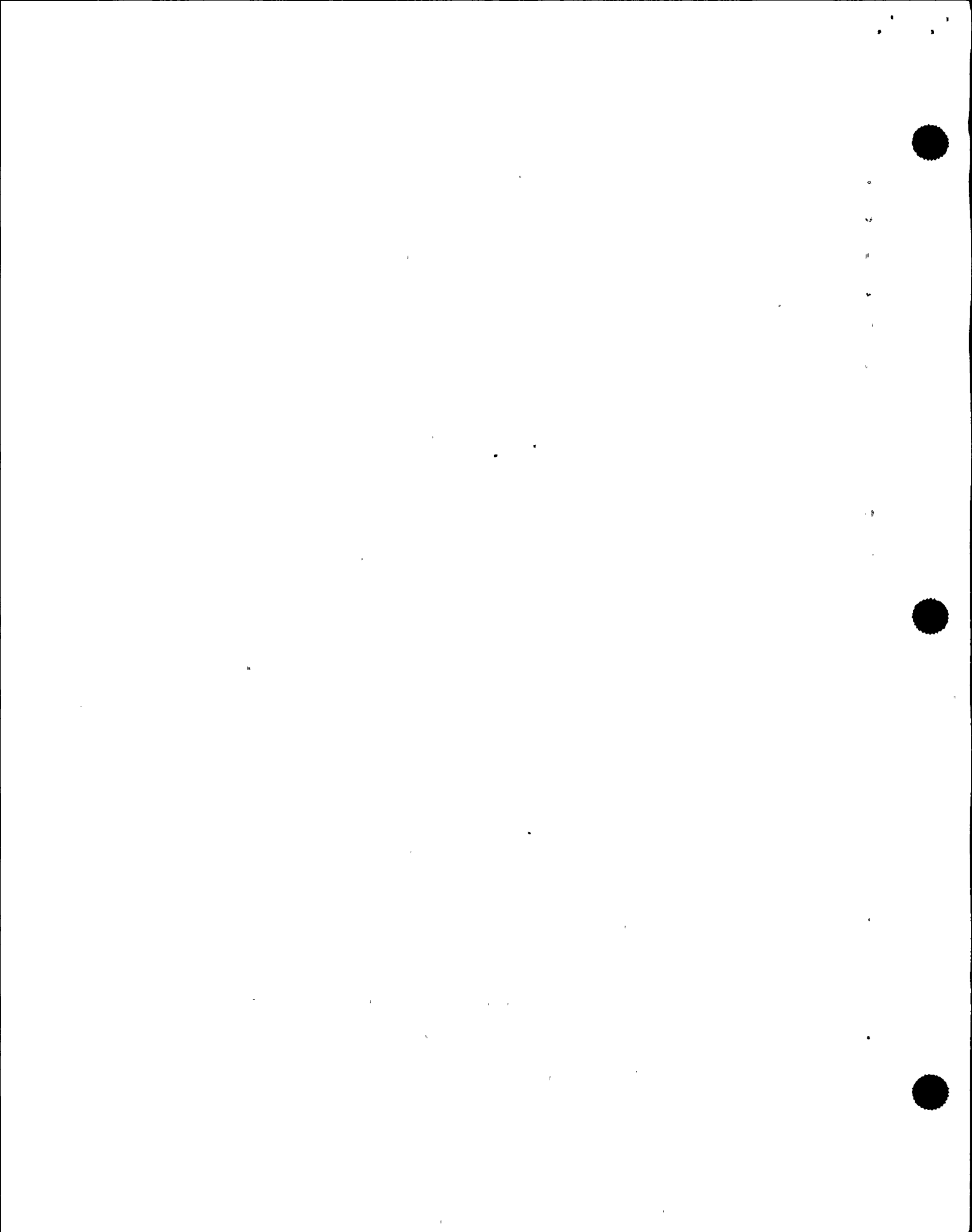
14 There were definitions proposed in that SECY
15 paper, the '86 SECY paper. Do you know, at least, whether
16 the Commission was receptive to those definitions, or is
17 that part of the controversy?

18 MR. ADER: That was part of coming to closure, and
19 at this point in time, I don't think it would be fair to try
20 to say what the other Commissioners at that time agreed to
21 or didn't agree to.

22 MR. CONTE: Okay.

23 In your mind, is there a regulatory basis for
24 "important to safety" classification?

25 MR. ADER: My -- my dealings had been -- or my



1 usage of the terms, they had always been used the same, that
2 "safety related" had been -- or "important to safety" and
3 "safety related" were the same set.

4 If you came up with another set of words, I think
5 there are clearly a lot of areas that the agency has put
6 regulatory positions out that are not -- for equipment
7 that's not safety-related.

8 I mean I think the "important to safety" term has
9 gotten very -- very confusing, because there are some parts
10 of the regulations that use it, in my belief, in the way
11 that "safety related" is used.

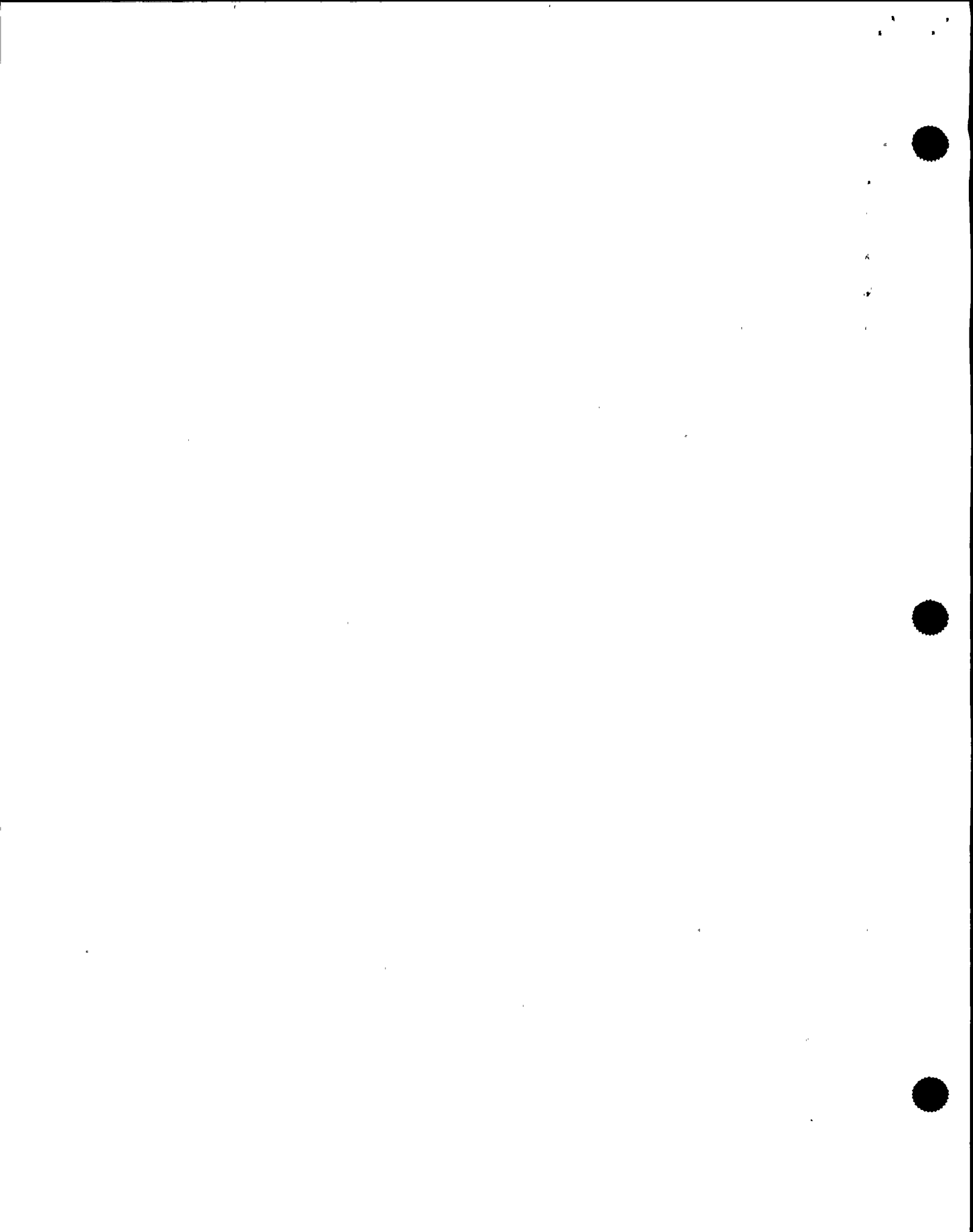
12 I think, maybe because people have not been using
13 it of late, a lot of the confusion, a lot of the controversy
14 has -- has not been there.

15 MR. CONTE: Have you had any direct involvement in
16 the classification of equipment like rod position
17 indication, instrumentation, EOP parameters, and their
18 associated instrumentation or power supplies?

19 Have you had any involvement in that, and do you
20 know of any staff positions, as such, on the classification
21 of that kind of equipment?

22 MR. ADER: No, not specifically that set of
23 equipment. I have been involved in the past in
24 classifications of -- of equipment.

25 MR. CONTE: Like what?



1 MR. ADER: I had worked for an AE before I joined
2 the agency. So, we generally would classify it.

3 As you ordered equipment or designed equipment or
4 did system design, you made a classification, whether it was
5 safety-related, non-safety-related.

6 MR. CONTE: Any involvement or experience with a
7 gray area, or was it -- in your function, working with the
8 AE, was it always black-and-white, safety-related versus
9 non-safety-related?

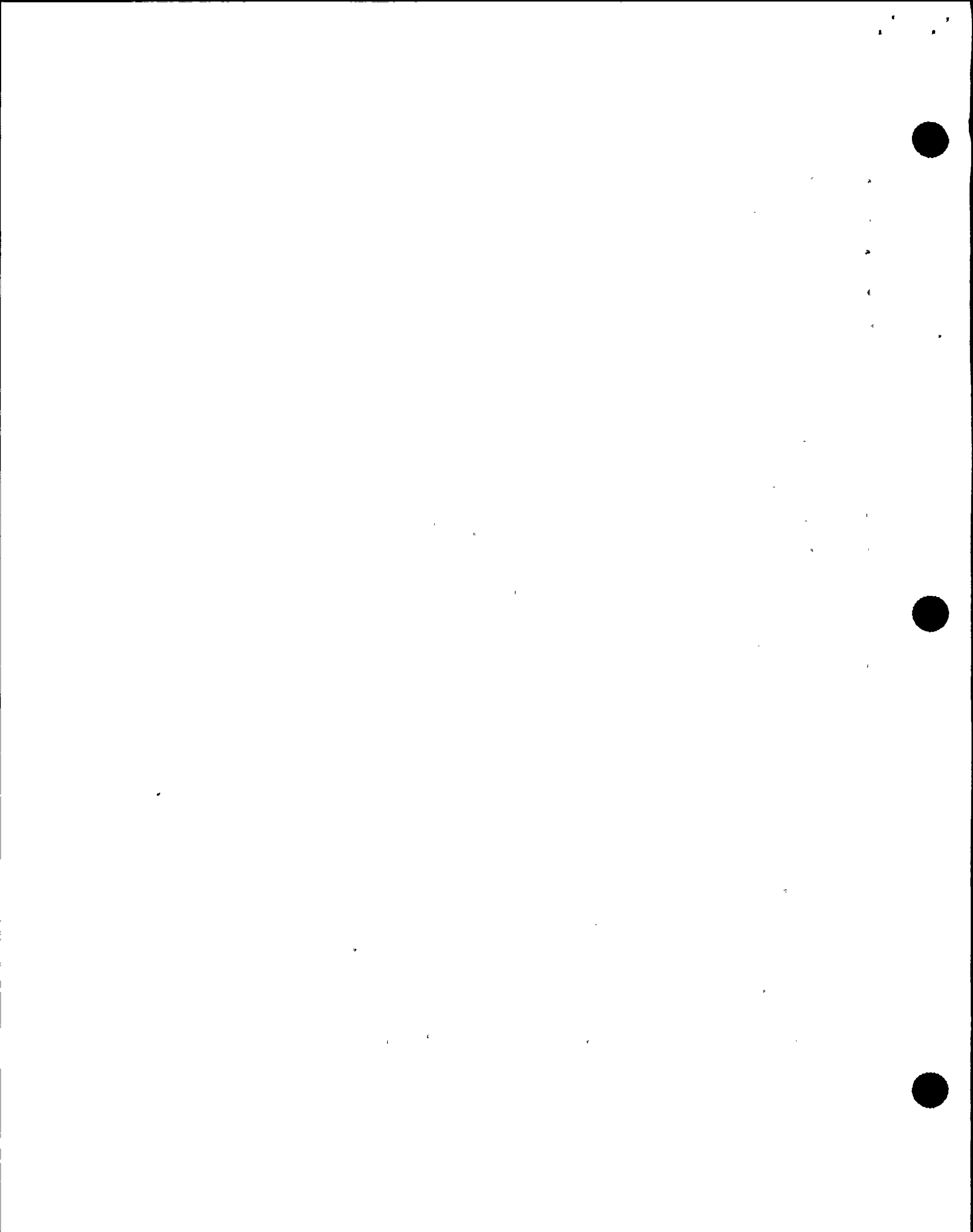
10 MR. ADER: No. There were clearly areas that
11 you'd look at, and it wasn't clear whether it would be
12 safety-related or not.

13 My experience, generally we erred in making it
14 safety-related. It was easier, if you buy it safety-
15 related and you decide later it didn't need to be, to
16 downgrade it or to change the designation than if you had
17 not bought it.

18 MR. JORDAN: Does the vendor, does he specify
19 what's safety-related and what's not safety-related, or is
20 that up the AE to determine?

21 MR. ADER: Within their scope, they specified what
22 was and what was not safety-related. A lot of the plants,
23 depending on -- depending on the plants, NSSS and AEs have
24 different rules on what they supply.

25 A lot of the containment, containment designs,



1 some of the gaseous waste systems may have been safety-
2 related. That's generally within -- if that's within the
3 AE's scope on that project, that would be up to the AE to
4 specify.

5 MR. JORDAN: But the determination is up to the
6 AE, also?

7 MR. ADER: For that stuff within his scope. The
8 NSSS would specify within his scope all the safety-related.

9 MR. JORDAN: Okay.

10 MR. VATTER: Seems like the utility would have a
11 determination.

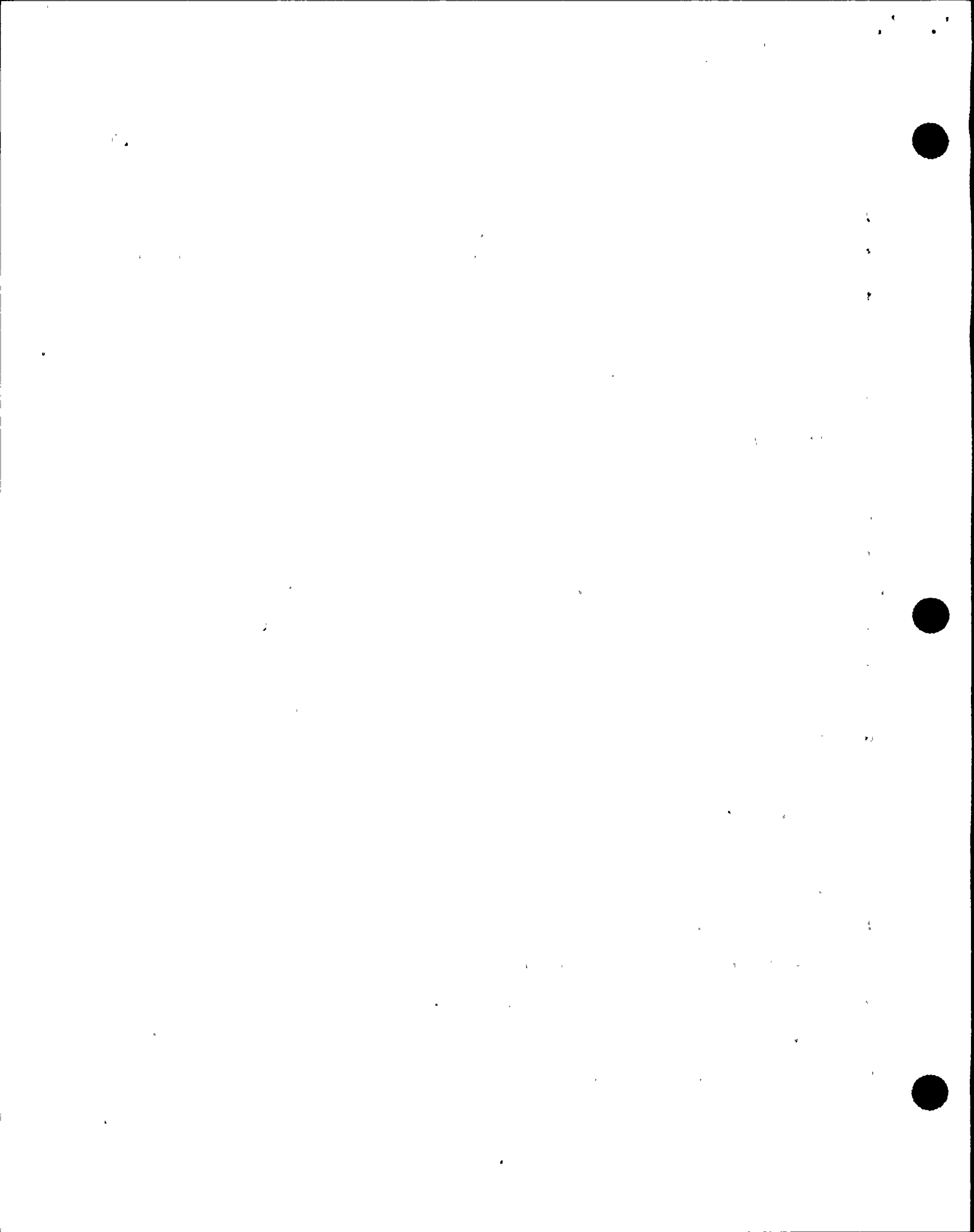
12 MR. ADER: Clearly. I mean the AE acted as agent
13 for the utility. The utility -- you know, ultimately, it's
14 the utility that makes the decision.

15 MR. VATTER: So, that AE is just making
16 recommendations.

17 MR. ADER: If you look at it like that, yes. The
18 utility can override an AE.

19 But a lot of things, they -- they hire the AE --
20 especially back when I was involved, in the early '70s, they
21 hired an AE for their expertise, and my experience is,
22 generally, they went with the judgement of the AE.

23 I think, as safety-related got used more, what was
24 safety-related and what wasn't became clearer, just through
25 practice and experience.



1 MR. CONTE: Okay.

2 I'm pretty much done with "important to safety."
3 I'm ready to go on to the maintenance role, unless there's
4 other issues you guys want to pursue.

5 [No response.]

6 MR. CONTE: Hearing none, why don't you give us
7 kind of a summary of where the agency is on the maintenance
8 rule and perhaps highlight your involvement in it for
9 whatever and if you can give us an understanding of the
10 apparent conflict between the staff and the Commission on
11 whether or not the rules should be issued.

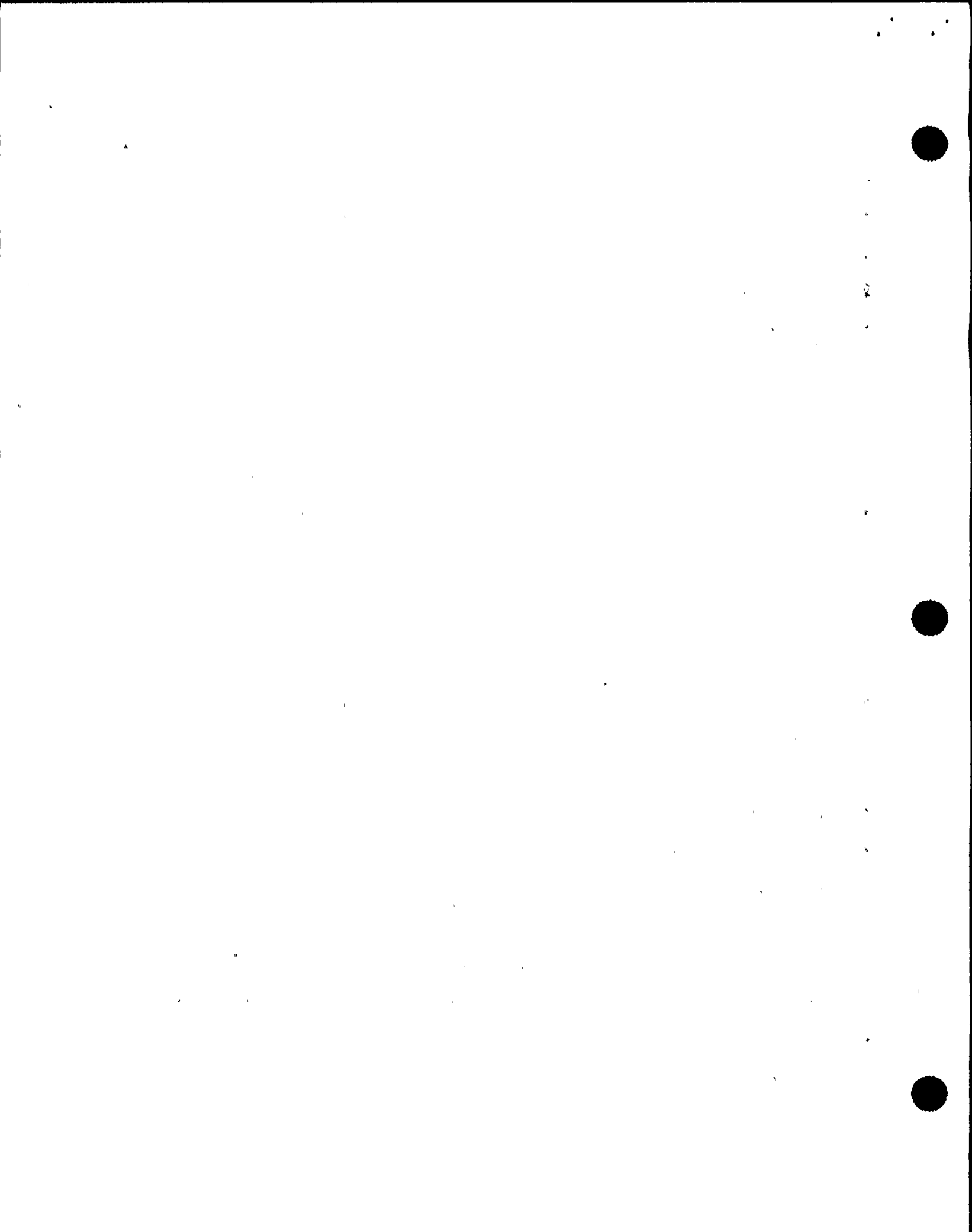
12 MR. ADER: I was involved from a couple different
13 ends. Again, working for Commissioner Roberts, I was
14 involved in the early papers that came up on maintenance.

15 There were some policy statements -- I think two
16 policy statements -- that were put out. There was a
17 proposed rule that came up and a recommendation for --
18 trying to remember now.

19 I think there was a recommendation for a final
20 rule back in the spring of '89.

21 I became involved, on the staff level, with
22 maintenance a little over a year ago. When I joined
23 Research, I had responsibility for the maintenance rule and
24 development of it.

25 At that time, there had been, as I say, a proposed



1 rule put out. There had been a draft reg guide put out for
2 comments.

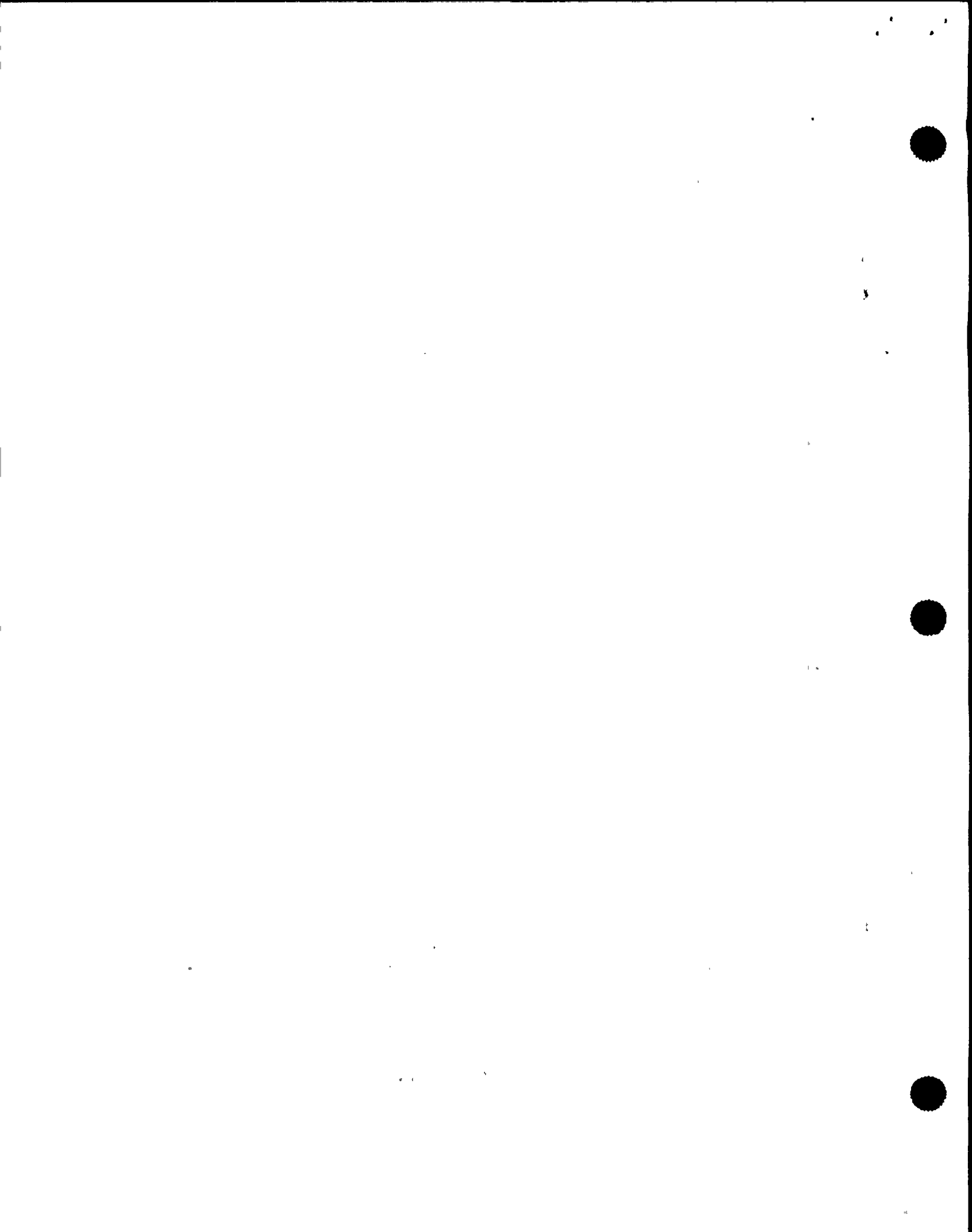
3 A final -- final rule had gone up to the
4 Commission in -- again, I believe it was the spring of '89.
5 The Commission, at that time, chose not to issue it, because
6 -- for a number of reasons.

7 I think my sense was because the reg guide had not
8 been issued yet, and they felt, since the reg guide was the
9 implementing document and contained most of the -- the
10 information on implementation of the rule, they directed
11 staff to issue that reg guide for comments and then come
12 back in 18 months with the final recommendation and, in the
13 interim, issued a revised policy statement presenting to
14 industry -- laying out this approach.

15 Again, I'm trying to remember the dates. It's in
16 the SECY paper I brought. I think it's sometime in the
17 spring of '90.

18 The Commission had -- yes, on April 13, 1990, the
19 staff had forwarded to the Commission, at their request,
20 four criteria to be used in determining a need for a
21 maintenance rule, and the Commission approved those four
22 criteria and also indicated there were several other factors
23 they would use in making up their -- their mind on any new
24 rule.

25 In around May of '90, the Commission directed



1 staff to -- in not only finalizing the -- what was kind of
2 known as the process-oriented maintenance rule, to issue or
3 develop a proposed reliability-based maintenance rule.

4 So, my involvement from around April-May 1990
5 until this past summer, end of June, was developing the
6 proposed reliability-based maintenance rule and finalizing
7 the process-oriented maintenance rule, developing associated
8 reg guides for both of those regulatory analyses.

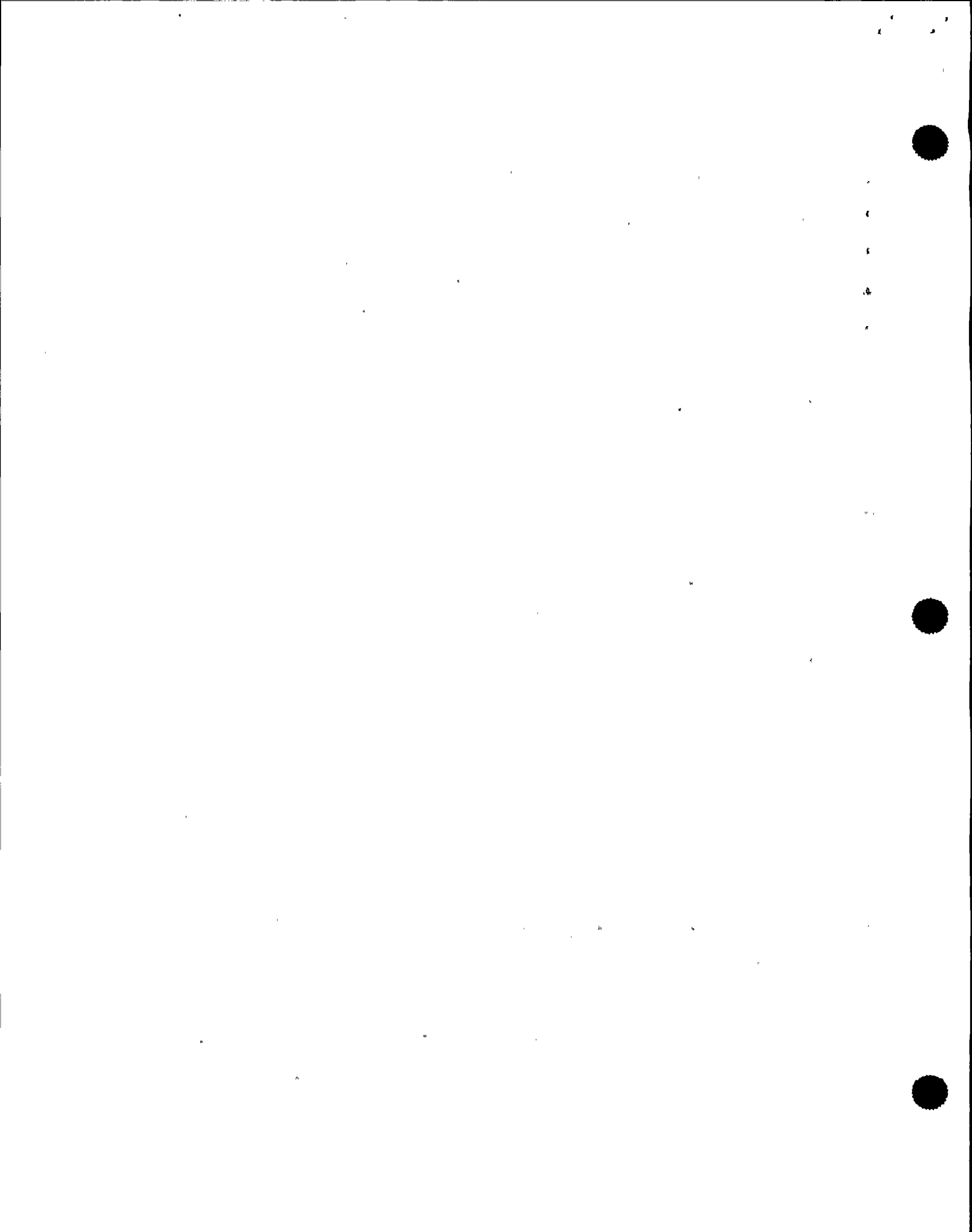
9 MR. CONTE: We will be getting into what equipment
10 was covered by this mention of the rule, but before we get
11 to that, can you summarize the controversy?

12 Was it a controversy between the Staff and the
13 Commission? It sounded to me like the Staff was against it
14 and the Commission wanted it, wanted the rule.

15 Could you summarize the opposing positions on
16 this?

17 MR. ADER: Well, I would have to agree that the
18 Commission wanted a rule because they've issued a rule, so I
19 mean their view obviously was that a rule was needed.

20 Again, going back, Staff at Commission's request
21 proposed four criterias to be used to judge the need for a
22 maintenance rule. In the recommendation that went back up
23 in April Staff looked at the four criteria. They came to
24 conclusions to each of those criteria. They felt that they
25 had -- Staff's position is those criteria had been met and



1 the history of it, the way it had been laid out is here were
2 the criteria that if met would obviate the need for a rule,
3 so Staff came to the conclusion on that basis that those
4 criteria having been met there was not a need for a rule.

5 MR. JORDAN: You mentioned in '79 or excuse me,
6 '89, the original maintenance rule went up. The Commission
7 said they wanted the Reg Guide to be issued before
8 maintenance rule.

9 Did that Reg Guide ever get issued?

10 MR. ADER: It was issued in August of -- I believe
11 it was August of '89. It was a draft Reg Guide so it was
12 issued for public comments at that time.

13 MR. JORDAN: For public comments. Did we then
14 take the public comments and issue the Reg Guide or did the
15 original Reg Guide went away as a result of the new
16 maintenance rule?

17 MR. ADER: It went away as a result of the new
18 maintenance rule and the package that was sent up in April
19 had a finalized version of that Reg Guide.

20 You wouldn't issue a Reg Guide without a rule.

21 MR. JORDAN: Okay, so we got another rule and then
22 additional Reg Guides we're going to be going to issuing to
23 implement the new rule.

24 MR. ADER: Yes. There's a two year, they laid out
25 a two year time period for Staff to issue a draft and a



1 final Reg Guide. There's a five year implementation on that
2 rule so that would give the Licensees three years after
3 issuance of the Reg Guide to implement the rule, and that is
4 being worked on. That is being done now by a different
5 group in research.

6 MR. CONTE: Okay, so the next revision of the Reg
7 Guide is going to be the implementing instructions for the
8 rule?

9 MR. ADER: It will be the Reg Guide implementation
10 of the rule that the Commission approved, issued in July.

11 MR. CONTE: Will all licensees have to follow that
12 Reg Guide or will they, can they -- the standard caveat in
13 all Reg Guides is this is a method acceptable to the Staff.
14 Other methods may be acceptable.

15 MR. ADER: Yes, I think that is still going to be
16 true because it only going to be a Reg Guide.

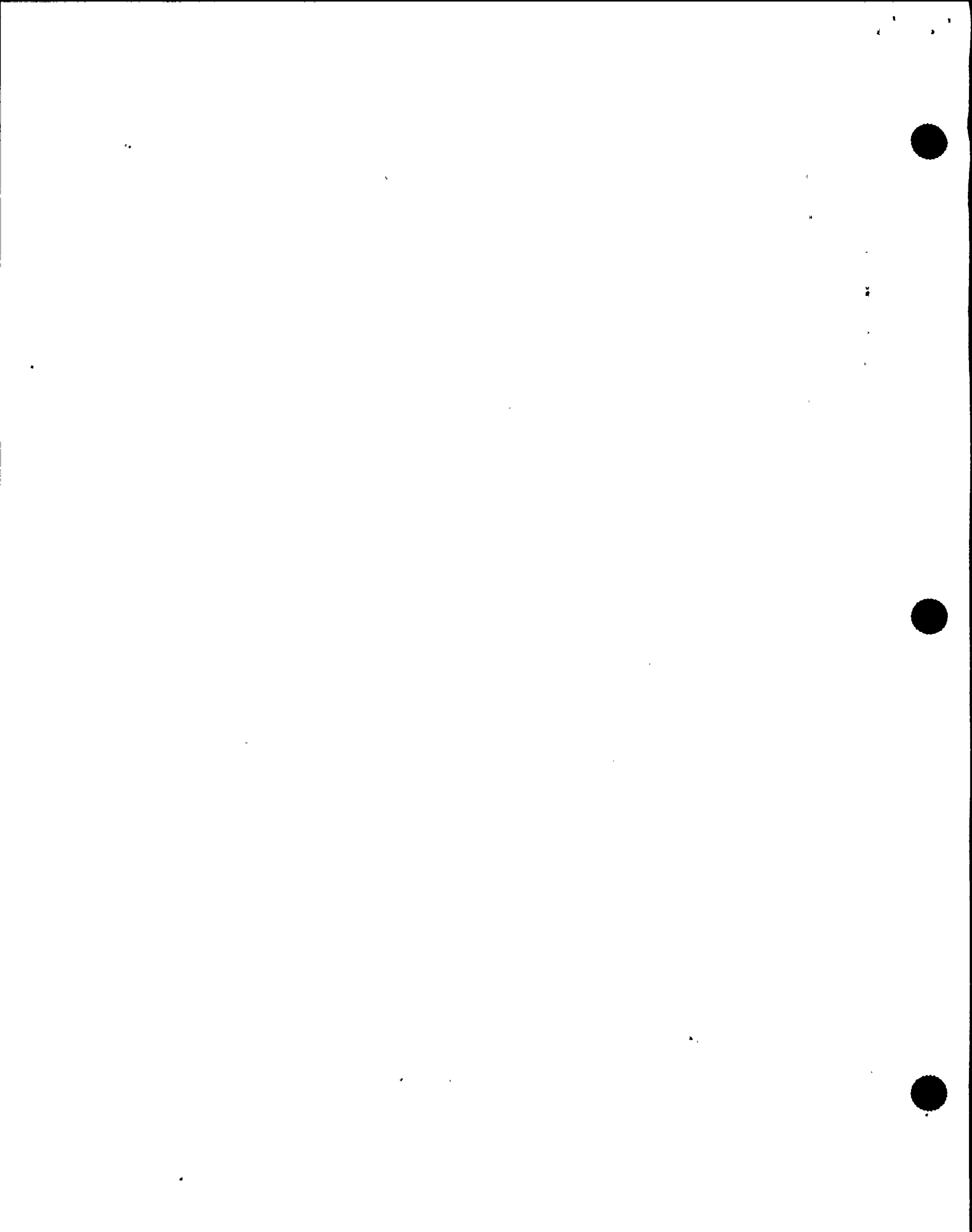
17 MR. CONTE: So the licensee will either, could
18 either adopt the Reg Guide or propose their own method?

19 MR. ADER: Yes.

20 MR. JORDAN: There's no proposal to revise the
21 maintenance rule to require the Reg Guide that you know of?

22 MR. ADER: Not at this time. Not that I am aware
23 of.

24 MR. CONTE: Okay, now what scope of equipment are
25 we talking about in this maintenance rule, in the contents



1 of safety-related and non-safety related and important to
2 safety?

3 MR. ADER: It would clearly include safety-
4 related. The definition of safety-related is in there or
5 what has become the definition of safety-related, which is
6 in Part 100 and it's in Part 21, 50.49 EQ, so that is in
7 there and that goes beyond that and it includes equipment
8 that would be -- I might have to look at the exact words --
9 used in mitigating transients or accidents or words to that
10 effect.

11 It would include some of the station blackout
12 equipment that may be non-safety related. It would include
13 the ATWS equipment that is non-safety related, other systems
14 that licensees have in a plant that they use to mitigate
15 accidents.

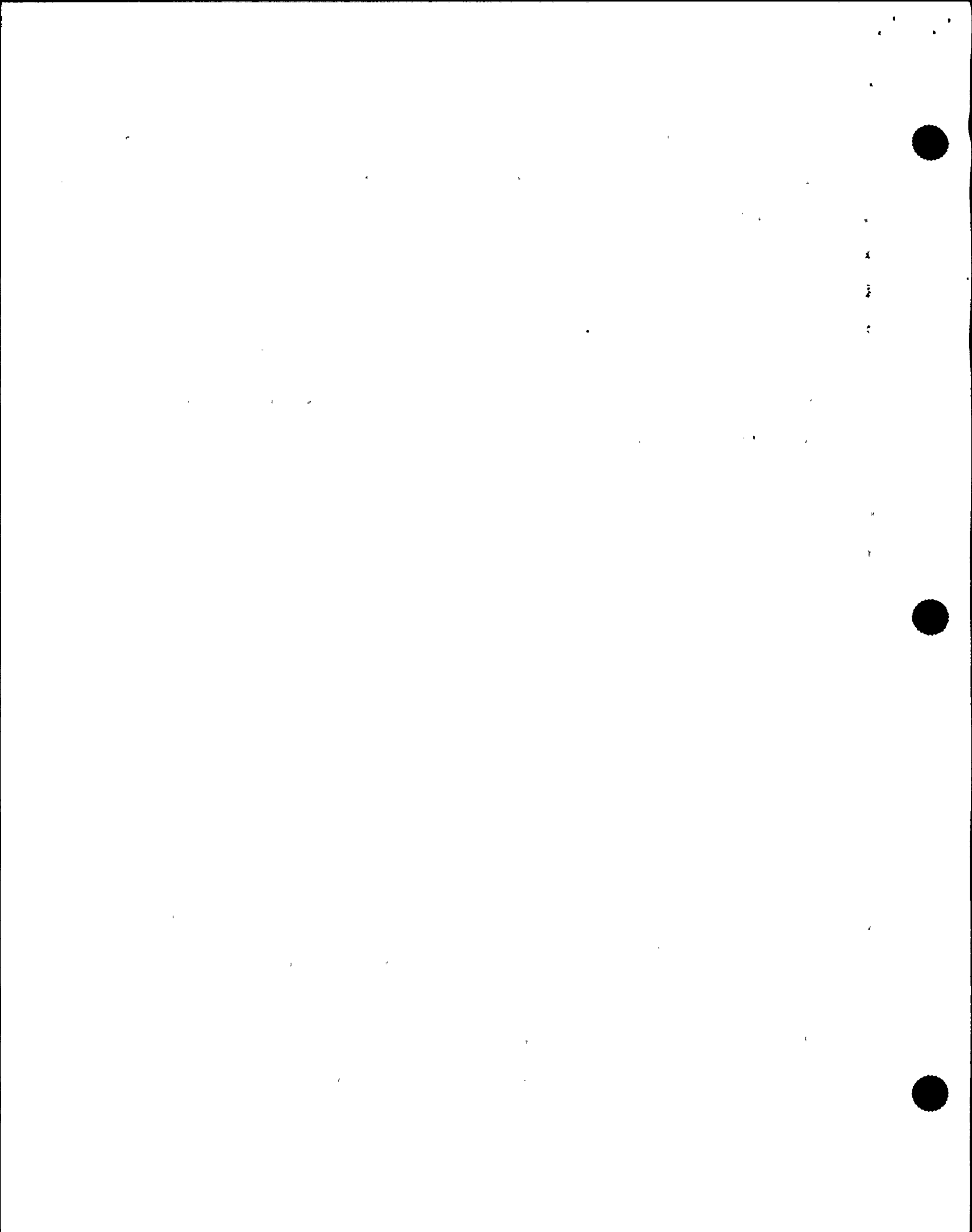
16 MR. CONTE: Could you find the exact words for the
17 record?

18 MR. ADER: Yes, just a second. Okay, it's --

19 MR. CONTE: Could you read them, please?

20 MR. ADER: Yes. It's 50.65 -- I guess it's
21 subsection (b), "the scope of the monitoring program
22 specified in paragraph (a)(1) of this section shall include
23 safety-related and non-safety-related structures, systems
24 and components as follows."

25 It has safety-related systems, structures and



1 components, which then follows the definition of that from
2 Part 100; non-safety related structures, systems, and
3 components (1) that are relied upon to mitigate accidents or
4 transients or are used in plant emergency operating
5 procedures, EOPs in parentheses or (2) whose failure could
6 present safety-related structures, systems, and components
7 from fulfilling their safety-related function; or (3) whose
8 failure could cause a reactor scram or actuation of a
9 safety-related system.

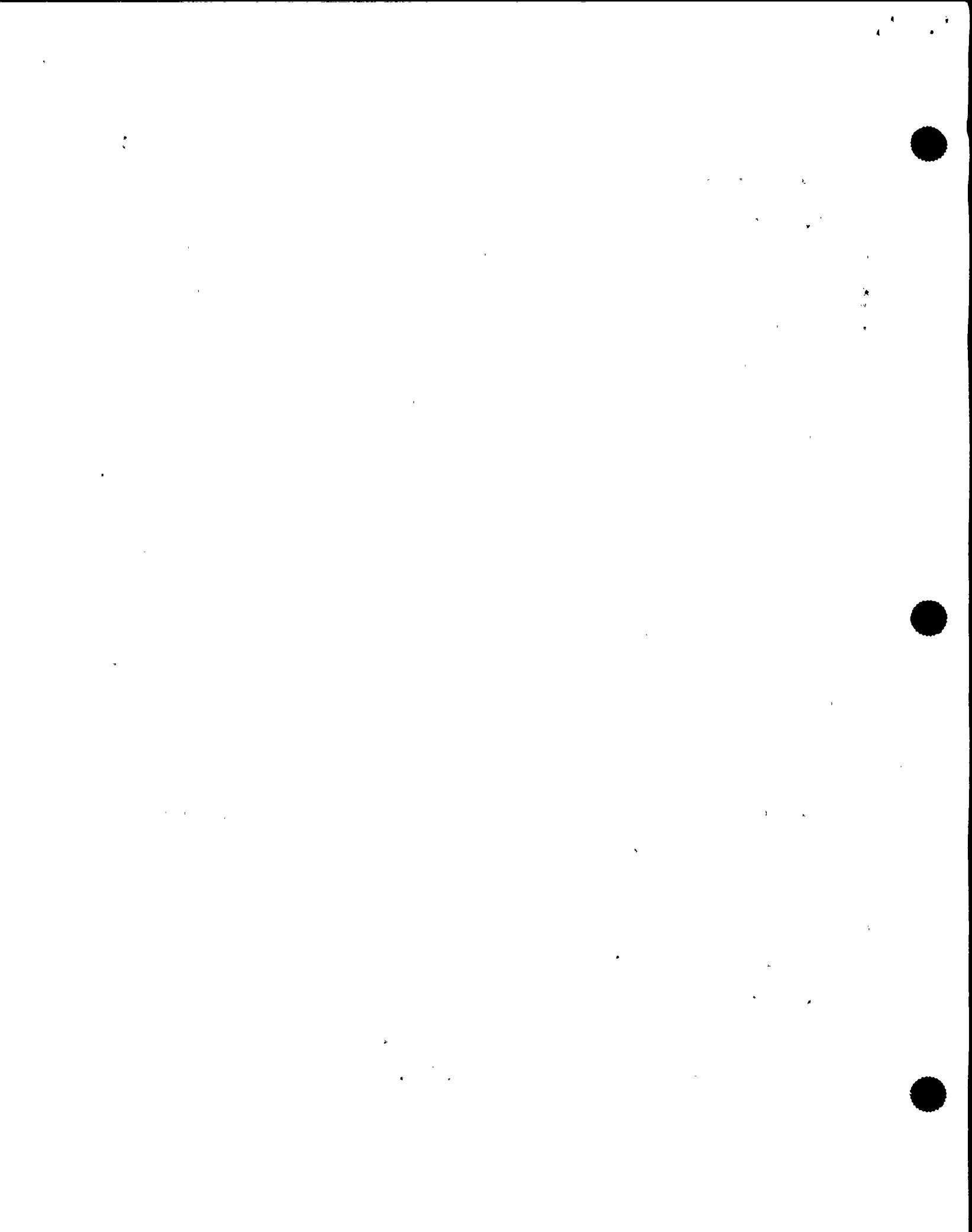
10 MR. CONTE: Okay. Let me give -- just let me give
11 you some design information with respect to Nine Mile 2.

12 On rod position indication the read switches and
13 the display lights have their power supplies from
14 uninterruptible power supplies that are classified as non-
15 safety related.

16 The uninterruptible power supplies are basically
17 an AC and DC input sources generating I think 120 volt AC
18 output with some logics in there to be able to get a
19 maintenance supply AC to bypass that -- almost like three
20 sources of power but non-safety classification, okay?

21 The APRMs, the average power range monitors, we're
22 talking of the boiler now -- BWR-5 -- not that it makes that
23 much difference with respect to APRMs but those power
24 supplies are non-safety power supplies.

25 I guess we have established at this point that a



1 failure of one of those UPS's -- I believe it's the A, may
2 well indeed cause a reactor trip.

3 It sounds to me -- I'm going to make a conclusion
4 here. You can let me know if you agree or disagree -- it
5 sounds to me that these non-safety UPS's -- by the way the
6 other UPS's supply power to balance of plant instrumentation
7 in the control room, not so much safety-grade
8 instrumentation but balance of plant and the full core
9 display for rod position indication.

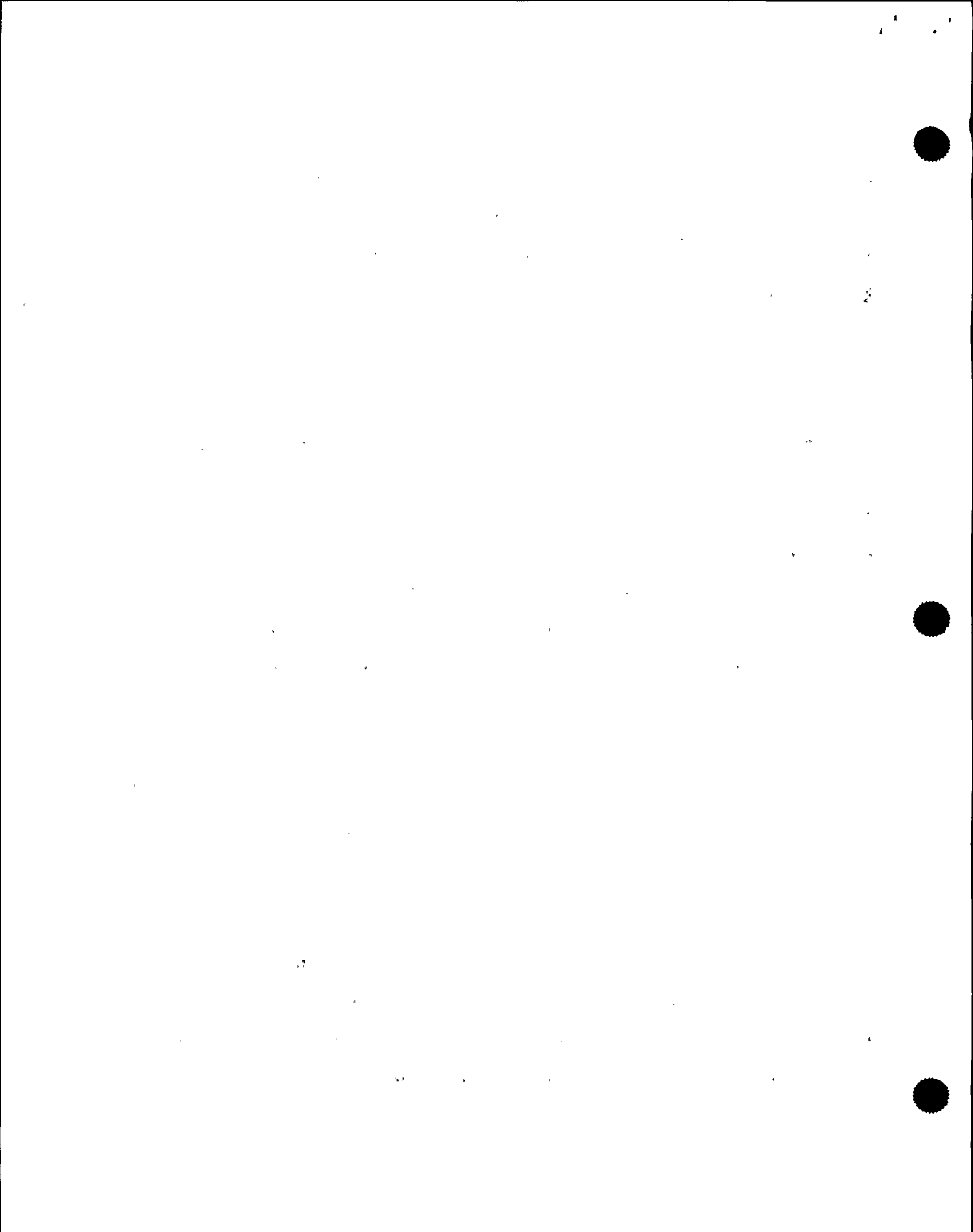
10 It sounds to me that these were all equipments
11 that may fall into one of the scopes of what you just read.

12 MR. ADER: From what you just said I would agree.

13 MR. CONTE: What do they have to do with this
14 equipment now in light of it being non-safety but within the
15 scope of the maintenance rule? What has to be done?

16 MR. ADER: This rule, as it was put out, was a
17 rule of monitoring the effectiveness of maintenance so the
18 rule would require that they monitor the operability and
19 what specifically they will have to do is being worked out
20 in the Reg Guide, at what level they cut that.

21 It is going to be in there but the rule would
22 require that they monitor through some manner the
23 operability of that equipment, unavailability, maybe
24 reliability. It may be some other measure as a way of
25 determining whether their maintenance is effective.



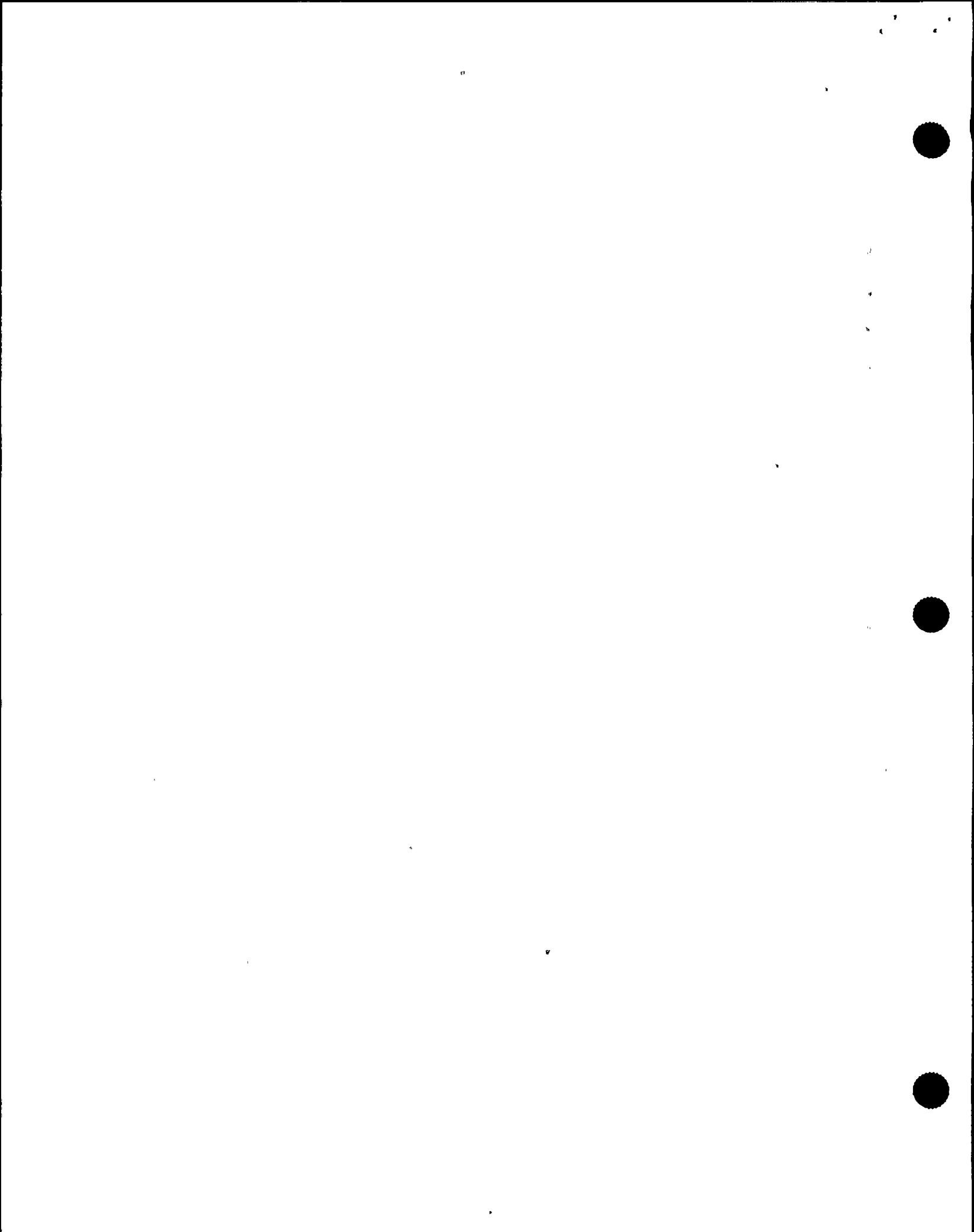
1 MR. CONTE: Then what? Is it going to say some
2 conclusions based on the Reg Guide that you're getting ready
3 to issue? The conclusion is that this equipment is
4 unavailable too frequently? Are there numbers here that
5 we're talking about? Do we have specific criteria that
6 licensees are going to have?

7 MR. ADER: The rule has licensees set goals for
8 their equipment and then monitor against their licensee-
9 established goals. Again, the Reg Guide, we've got about a
10 yearlong schedule to issue it. So a lot of the details at
11 what level are going to be worked out there at the monitor
12 assistance level, the component level.

13 MR. CONTE: Okay. So it's theoretical possible
14 that a non-safety piece of equipment will meet the criteria
15 on availability, perhaps not fall within -- well, it falls
16 within the scope at least from the monitoring point of view,
17 but if it meets this criteria, then really they don't have
18 to do anything special to it, if it's always available, part
19 of the criteria of the rule; is that correct?

20 MR. ADER: That would be my understanding of how
21 it would be implemented.

22 MR. CONTE: Okay. So there may be -- I don't know
23 how to call it -- an isolated or maintenance practice or
24 maybe an unintended overlook or oversight by the licensee or
25 the utility to not implement some particular preventive



1 maintenance recommendation in a vendor level?

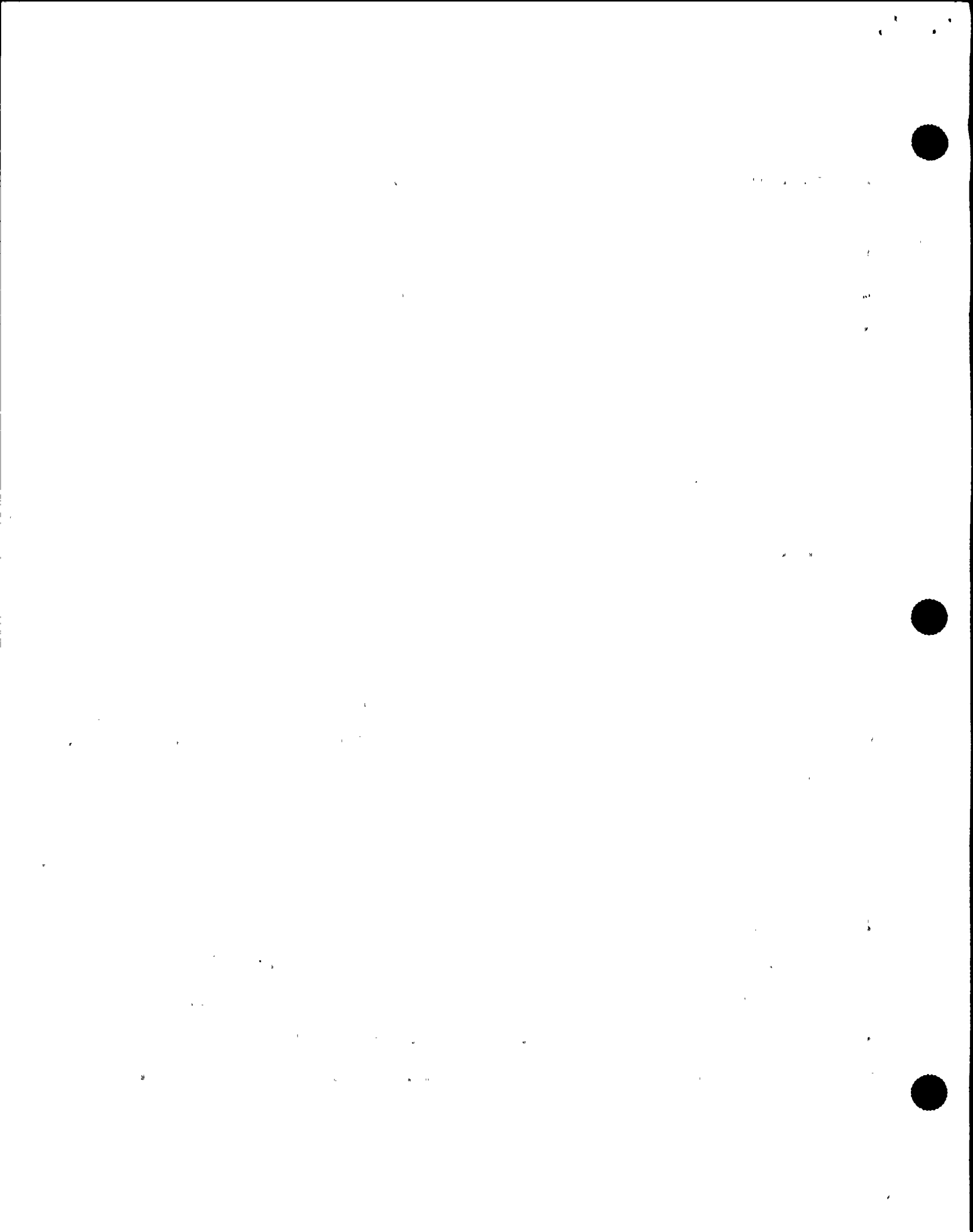
2 It may get overlooked, but at this point, it
3 hasn't called an unavailability, so really nothing is going
4 to be done about that. Is that a characterization of this -
5 - use of this availability/unavailability criteria?

6 MR. ADER: The rule, as it got issued, is not now
7 into regulating how they do maintenance. I think the
8 Commission in their attempt did not want to get into how
9 they do maintenance. So the following, that they have
10 procedures, that they have this organizational structure or
11 that, they leave that up to the licensees.

12 Partly, I believe -- and again, I kind of hate to
13 say what the Commission believes or doesn't believe -- when
14 Staff did maintenance team inspections at all of the plants
15 and found that all of the plants, as far as the programs,
16 were satisfactory or good. There were no programs out there
17 that were poor anymore. The implementation overall was
18 good. There may be certain areas that were poor for
19 individual licensees.

20 I believe the Commission looked at that and said:
21 We don't need to get into the regulation of how they do
22 their program. What we want to do now is find a way to
23 monitor the effectiveness of this program in the long-term.

24 MR. VATTER: To me, monitoring is not real clear.
25 It could be just tracking data that is already available, or



1 it could mean identifying new parameters you want to track,
2 like performance of monitoring sometimes involves almost
3 surveillance type activities to collect data.

4 Could you characterize what kind of monitoring is
5 envisioned?

6 MR. ADER: At this point in time, I would not --
7 actually I wouldn't want to characterize it, because that's
8 going to have to be worked out in the Reg Guide.

9 The rule that was issued -- there were two rules
10 that were proposed, the process-oriented rule which had some
11 section on monitoring and feedback, and then a reliability-
12 based rule.

13 The Commission chose out of the process-oriented
14 rule that part on monitoring and feedback. They basically
15 structured the rule through the guidance back to Staff, and
16 then Staff in short order turned it around into the rule
17 that was issued, with full recognition that there was going
18 to be a lot of work in the next two years to define what
19 level of monitoring would be needed.

20 It would make use of the monitoring that's already
21 out there, the surveillance that are being done,
22 inspections, making use of that, to whether a licensee would
23 or would not have to add any new activities would depend on
24 the goals that are set, the ability to meet them.

25 MR. JORDAN: Was this one of the proposed methods



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1 that the Staff sent to the Commission?

2 You said there were two -- the person sent -- I
3 guess, the proposal to the Staff, of the Staff to the
4 Commission, was not to have a maintenance rule. However, if
5 you're going to have a maintenance rule, if it included two
6 alternatives, and one of those was this type of a rule or
7 not?

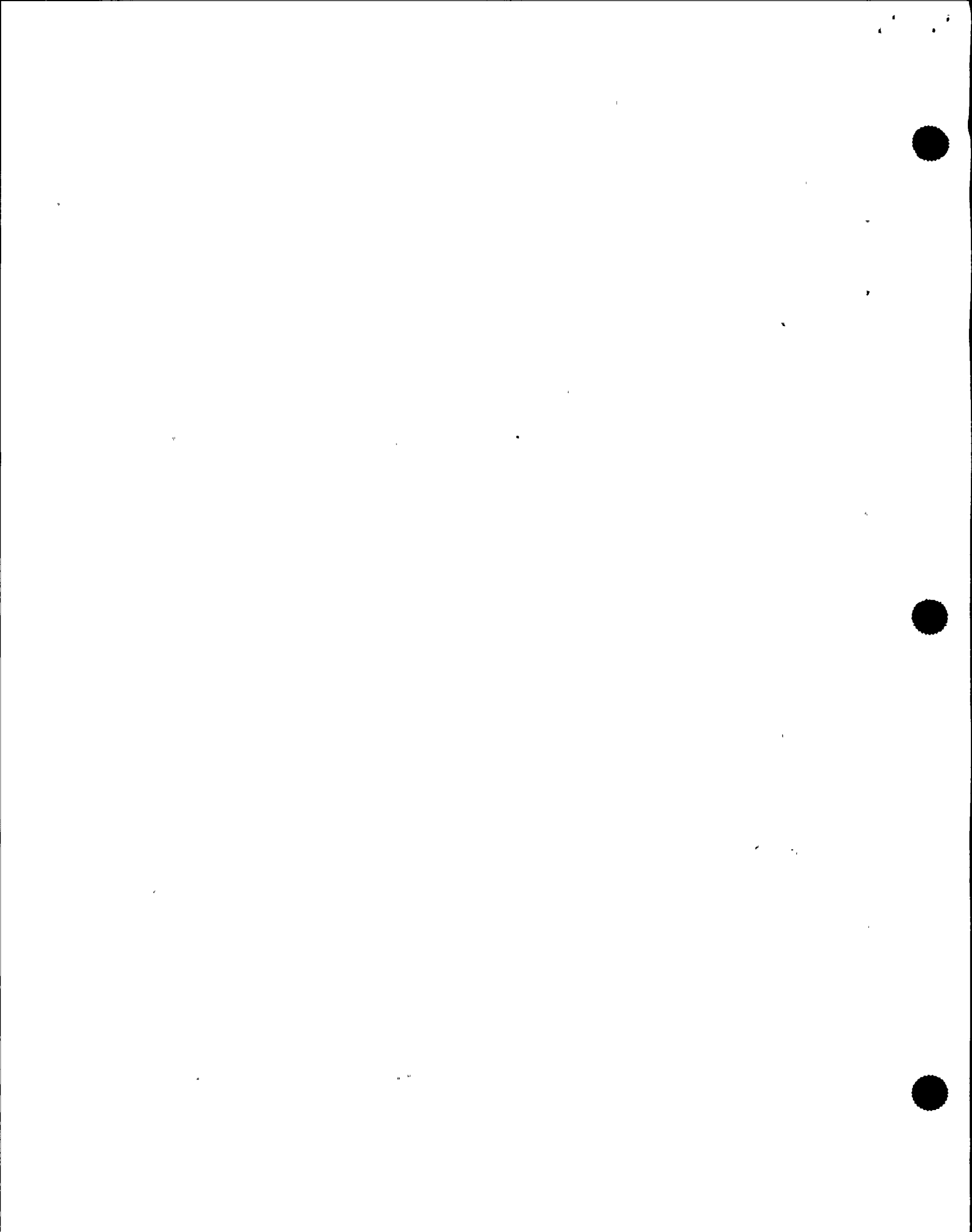
8 MR. ADER: The Staff said: If you're going to
9 have a rule, we recommend the final process-oriented rule.
10 Now that rule had a section in there on monitoring, not
11 quite like this, but it had covered that issue and a
12 proposed stage of monitoring of that performance. Then it
13 had a lot of requirements on programmatic aspects,
14 engineering support, training, QA, various things like that.

15 The Commission decided to strip the programmatic
16 stuff out and expand the equipment performance monitoring.

17 MR. JORDAN: So equipment performance monitoring
18 in the maintenance rule, the application of it to safety and
19 non-safety is the same. What it's looking for is failures,
20 frequent failures, and resolution of those frequent
21 failures.

22 MR. ADER: Yes.

23 MR. JORDAN: And it doesn't make any difference if
24 it's safety or important to safety or falls within the
25 criteria of whatever it is, 50.65, they're handled the



1 same.

2 MR. ADER: Yes. Well, they're handled the same
3 under the rule and it's monitoring the effectiveness, the
4 goals you set, the monitoring you do -- well, at least in my
5 mind, it's going to most likely vary depending on the safety
6 significance of the system. The goals need to be set
7 commensurate with safety.

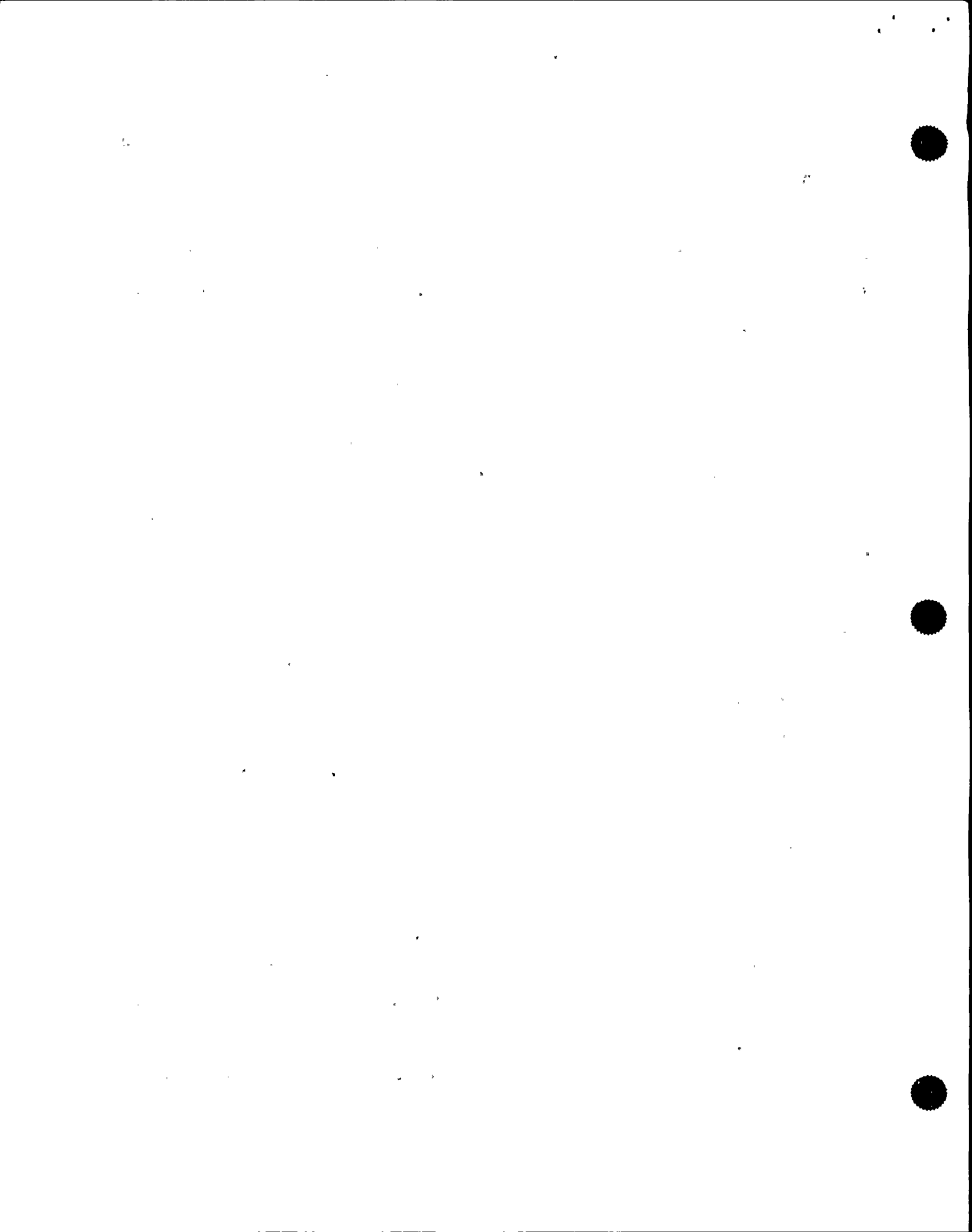
8 MR. JORDAN: But how about vendor recommendation
9 on maintenance, preventive maintenance on safety-related
10 equipment? The requirement for the utility to adhere to
11 those vendor-recommended preventive maintenance on safety
12 application, is there any place in the rule that you know of
13 that requires them to do that?

14 THE WITNESS: No, not in the maintenance rule.
15 Don't forget safety-related equipment. Appendix B covers
16 that, and there's a lot of regulatory oversight on safety-
17 related through a number of places. Tech specs, all the
18 tech specs also go beyond safety-related. Appendix B is the
19 big one, and you have corrective action under Appendix B
20 also.

21 MR. VATTER: One thing is that people don't have a
22 tendency to manage the indicators in such a way that
23 emphasis is not placed on safety in an appropriate manner.

24 MR. ADER: That is a concern.

25 MR. JORDAN: What kind of discussion went into



1 that?

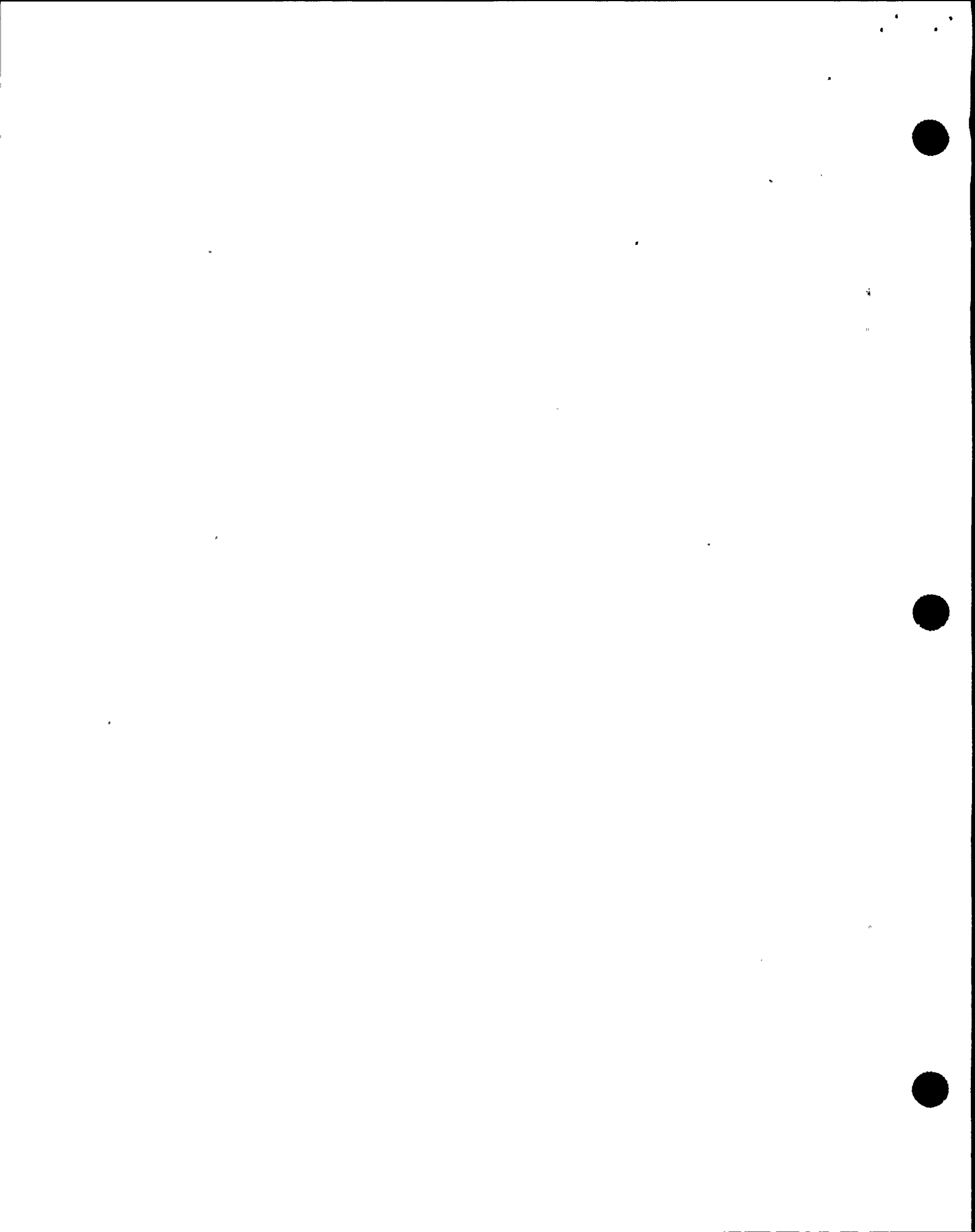
2 MR. ADER: The issue was raised that there was a
3 concern that people could manage indicators. I think part
4 of that, again, was left to be worked out in the Reg Guide.
5 It is licensee-set goals. They can set their goals for
6 things that they want to monitor.

7 MR. VATTER: It seems like they could also set
8 goals to monitor the indicators that were easy to manage.

9 MR. ADER: They could. I mean, they need to set
10 goals to provide assurance -- let me go back to the rule for
11 the exact words. "Shall monitor performance or condition of
12 structures, systems or components against licensee-
13 established goals in a manner sufficient to provide
14 reasonable assurance that such structures, systems and
15 components as defined in Paragraph B, are capable of
16 fulfilling their intended function."

17 Now, that unfortunately, sounds good, but actually
18 how that's going to be implemented and what constitutes
19 sufficient to provide reasonable assurance, those issues
20 were raised that these are concerns, and the view was that
21 that -- there's two years, that's why there's a five year
22 implantation, two years to develop a Reg Guide.

23 MR. CONTE: Is the Reg Guide the -- how specific
24 are we going to be here in terms of -- let's say a utility
25 does a good job in setting up goals, and it falls outside



1 the criteria where it demands some attention? What's the
2 nature of that attention?

3 MR. ADER: You mean the equipment performance?

4 MR. CONTE: Yes, the equipment performance proves
5 to be unreliable or unavailable. What does the licensee do?
6 Is it going to be in the Reg Guide or is it going to be
7 highly up to the licensee as to what they need to do?

8 MR. ADER: Again, I have to come back -- this was
9 done -- this rule was done to reflect the Commission vote,
10 the Commission majority's view. It was developed to reflect
11 that, with the understanding that all these types of
12 questions -- you know, the Commission recognized that when
13 they said, go ahead and develop the final rule along these
14 lines. You have to go back to the vote sheets, and you can
15 see where the -- what -- where their guidance was.

16 They recognized there's an awful lot of issues for
17 implementation, and that's why the five year window for
18 implementation, two years for the Reg Guide which gives
19 licensees three years. You know, the issues you've raised
20 and a lot of others were raised as -- we don't know.

21 From this rule, it doesn't say how you would
22 handle that. This is, if you don't meet your goals, you
23 take corrective action. Corrective action could be in your
24 maintenance program. I think there was initially a concern
25 that because this is a new way of doing business on this



1 scale, that if licensees set goals incorrectly, initially,
2 as it went through the implementation process, one
3 corrective action may be to adjust their goals to more
4 correctly reflect the system performance.

5 MR. VATTER: Who would adjust their goals?

6 MR. ADER: Pardon?

7 MR. VATTER: Who would adjust their goals?

8 MR. ADER: They're licensee-set goals, so the
9 licensee can adjust their rules.

10 MR. JORDAN: Do we get notification of goals and
11 adjustments to goals?

12 MR. ADER: The rule, as written, does not require
13 any submittals by the licensees. Again, that was the
14 Commission.

15 MR. JORDAN: Failure to accomplish their goals;
16 there's no notification either?

17 MR. ADER: No.

18 MR. VATTER: How do you handle a situation where
19 the licensee would set goals that weren't sufficient for the
20 challenge?

21 MR. ADER: The sense was that there was -- that
22 the licensees are doing individual plant examinations and
23 IPEs and they're submitting those. They do a lot of other
24 analyses to support station blackout rule or some of the
25 other ones; that they can't totally set goals that were out



1 of line, challenging very low equipment reliability, on the
2 one hand, for implementation of the maintenance rule when
3 they have submitted something to the Commission on the
4 docket, either through an IPE or someplace else, saying, we
5 have this equipment performance or system performance so we
6 don't have a safety issues here because the equipment will
7 perform at a certain level.

8 MR. JORDAN: Is that in there? Is that in the
9 rule; that they can't?

10 MR. ADER: It's not in the rule. It was in the
11 discussions that went behind it, whether -- I don't remember
12 whether we actually reflected that in the statement of
13 considerations at this time.

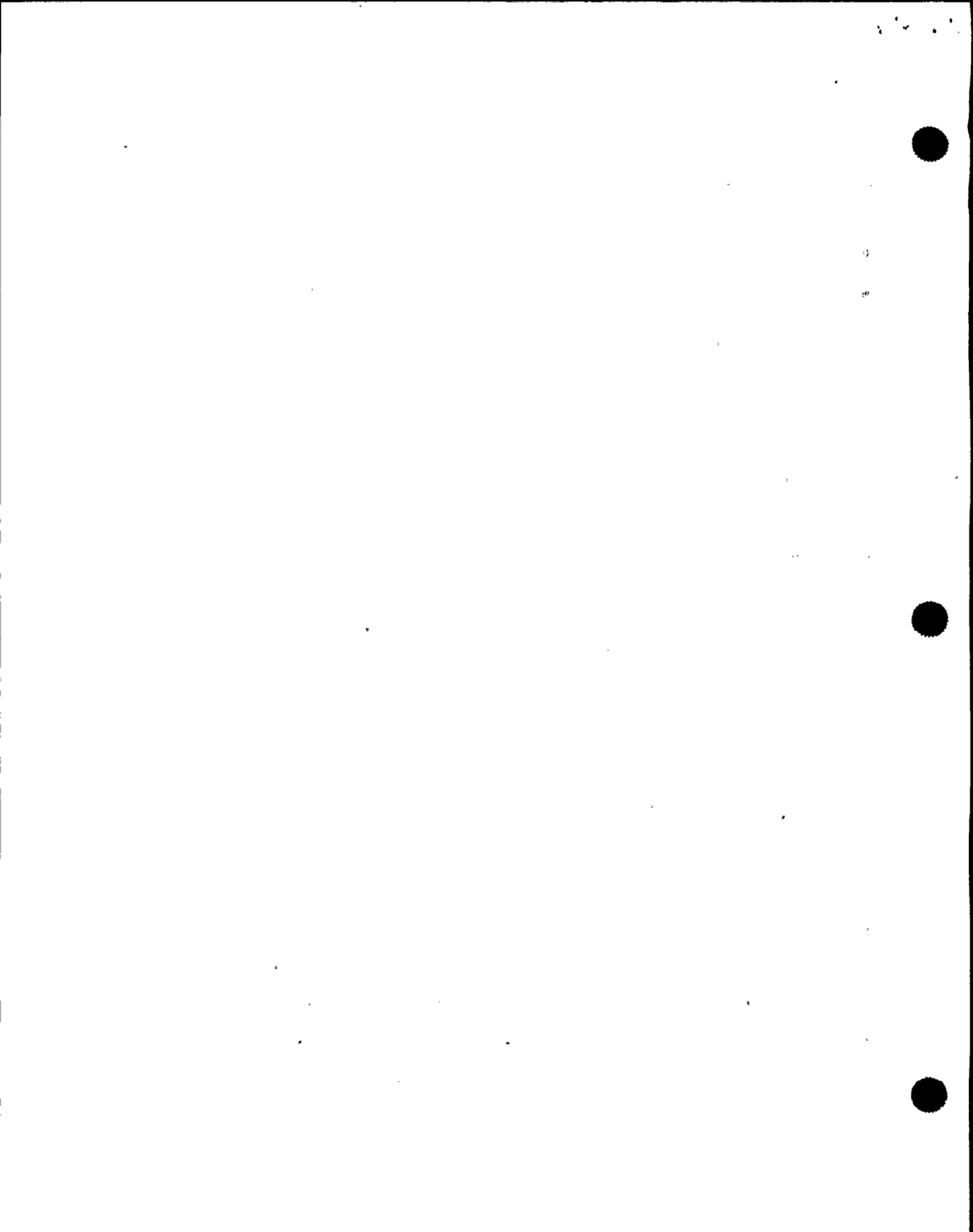
14 MR. CONTE: What other branches in the NRC are you
15 interfacing with in the development of this Reg Guide?

16 MR. ADER: Primarily the NRR Branch than Bill
17 Branch is the Branch Chief. I can't remember the acronym
18 now.

19 MR. CONTE: That's Division of Licensing
20 Performance and Quality, I think.

21 MR. ADER: But I don't remember the Branch.

22 MR. CONTE: We're going to be talking with Mr.
23 Roe. He's the Division Director. We've got a couple of
24 issues. One of them is the maintenance rule from his
25 perspective.



1 MR. JORDAN: Is the Reg Guide under you?

2 MR. ADER: No, it's not. It was -- I was in the
3 Advanced Reactor Generic Issue Branch that had the
4 maintenance rule. In December, I moved up to Severe
5 Accident Issue Branch, but because of the schedule and the
6 priority on it, I was one of the ones that provided
7 continuity. It went with me, I think, with the recognition
8 that if there was any followon work, that was not the place,
9 Severe Accidents Branch was not where you would think the
10 maintenance rule -- and Bob Baer in the Engineering Issue
11 Branch is the Branch Chief for the Branch that now has the
12 implementation.

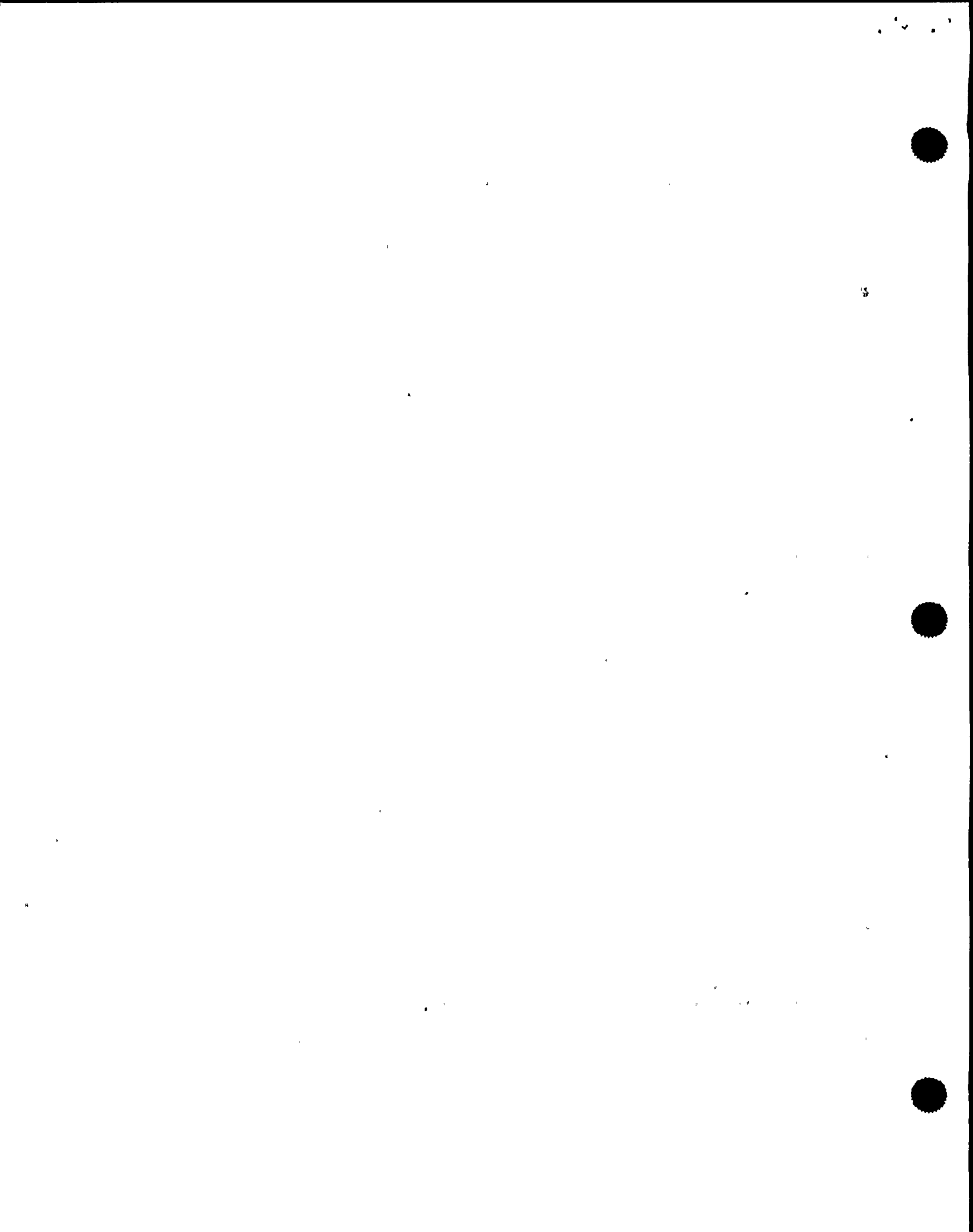
13 MR. CONTE: I don't have anything else. Bill?
14 Mike?

15 MR. VATTER: No, I guess not.

16 MR. JORDAN: No.

17 MR. CONTE: One last question: do you have
18 anything, positive or negative, to offer in this -- the
19 areas important to safety and maintenance area, other than
20 what's already been discussed? Anything you want to revisit
21 to clarify?

22 MR. ADER: No. As I said, I think, before, on
23 important to safety, in that, as you indicated, you had, I
24 guess, informally had gotten the sense that important to
25 safety, not to use -- I think, where we -- in the last few



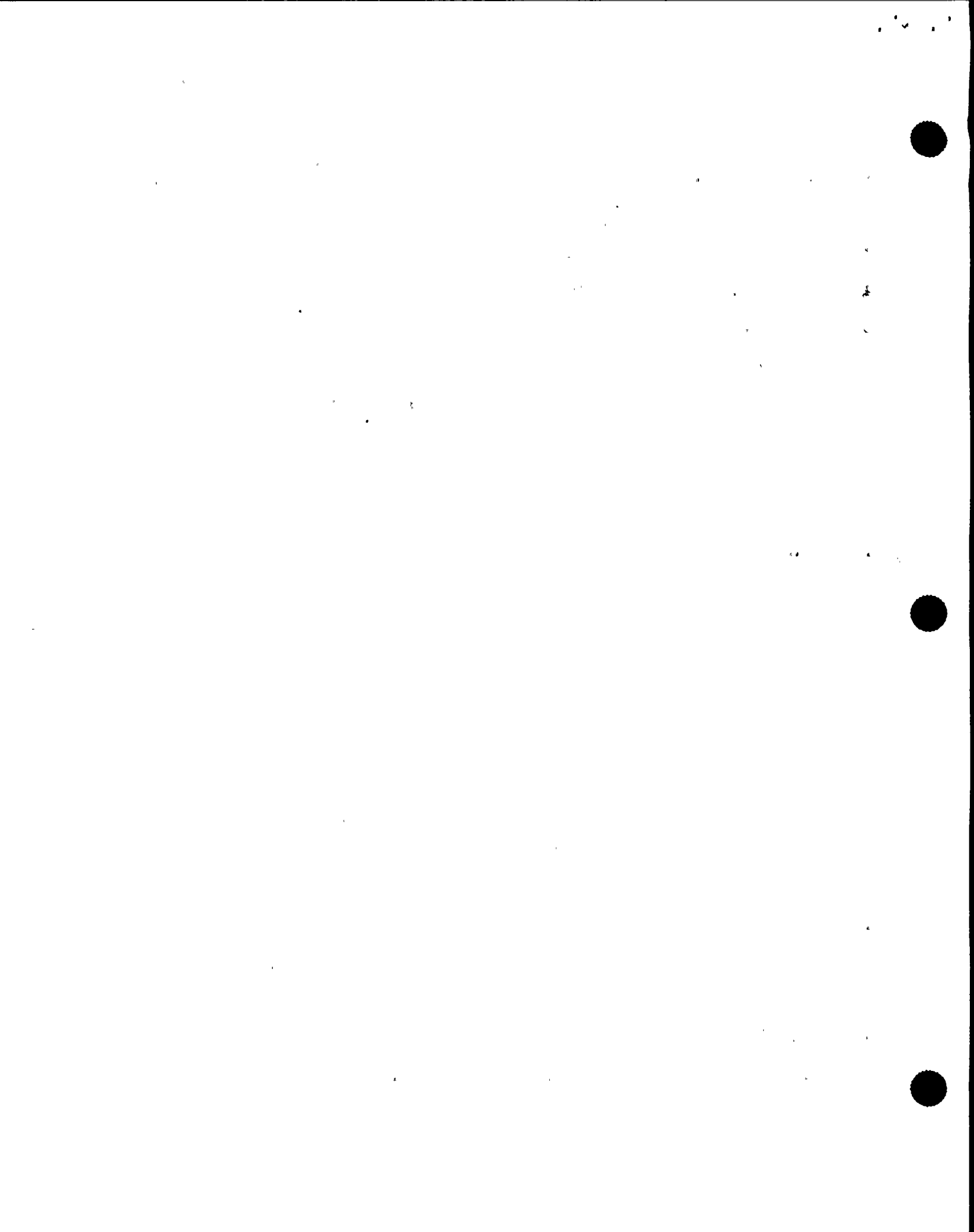
1 years, I've seen that term used less and less. It's avoided
2 a lot of confusion.

3 People know what safety-related is. If there's
4 something else that's non-safety related and we have
5 requirements on, and you want to discuss station blackout,
6 people being very specific and saying here's what the -- the
7 systems we're concerned about, here's the requirements on
8 those. There's generally very little confusion on that.
9 You use the term, important to safety, and everybody has
10 their own view of what that is and it still creates
11 confusion.

12 You still get a fair amount of discussion about
13 the issue. I have not found anyplace where those terms have
14 been needed to be used, or where we haven't used those
15 terms, we've created confusion by not using them and talking
16 specifically on a system. Maintenance rule is going beyond
17 safety-related. We didn't use the words, important to
18 safety, here, and that's caused no problems.

19 If we had put those words in there, I think it
20 would have created more confusion about what does that mean,
21 what's covered. We used the term safety-related and non-
22 safety related, which includes the following: and we're
23 very specific about what the following was.

24 MR. JORDAN: You think that the industry is going
25 to clearly understand where the boundaries of the



1 maintenance rule are, in time?

2 MR. ADER: Every plant -- I mean, again, it's
3 going to be -- this will be clear, in my view, because this
4 tends to be on a functional basis. If the equipment serves
5 this function, then it's included. If it doesn't serve this
6 function, it's not included.

7 If we had said safety-related and important to
8 safety, I would have no idea of what the scope was. We did
9 that very specifically. We tried to do it by function in
10 the maintenance rule. I think there's going to be some
11 time period, as there was with safety-related, that there
12 would be common understanding of what's on the fringes.

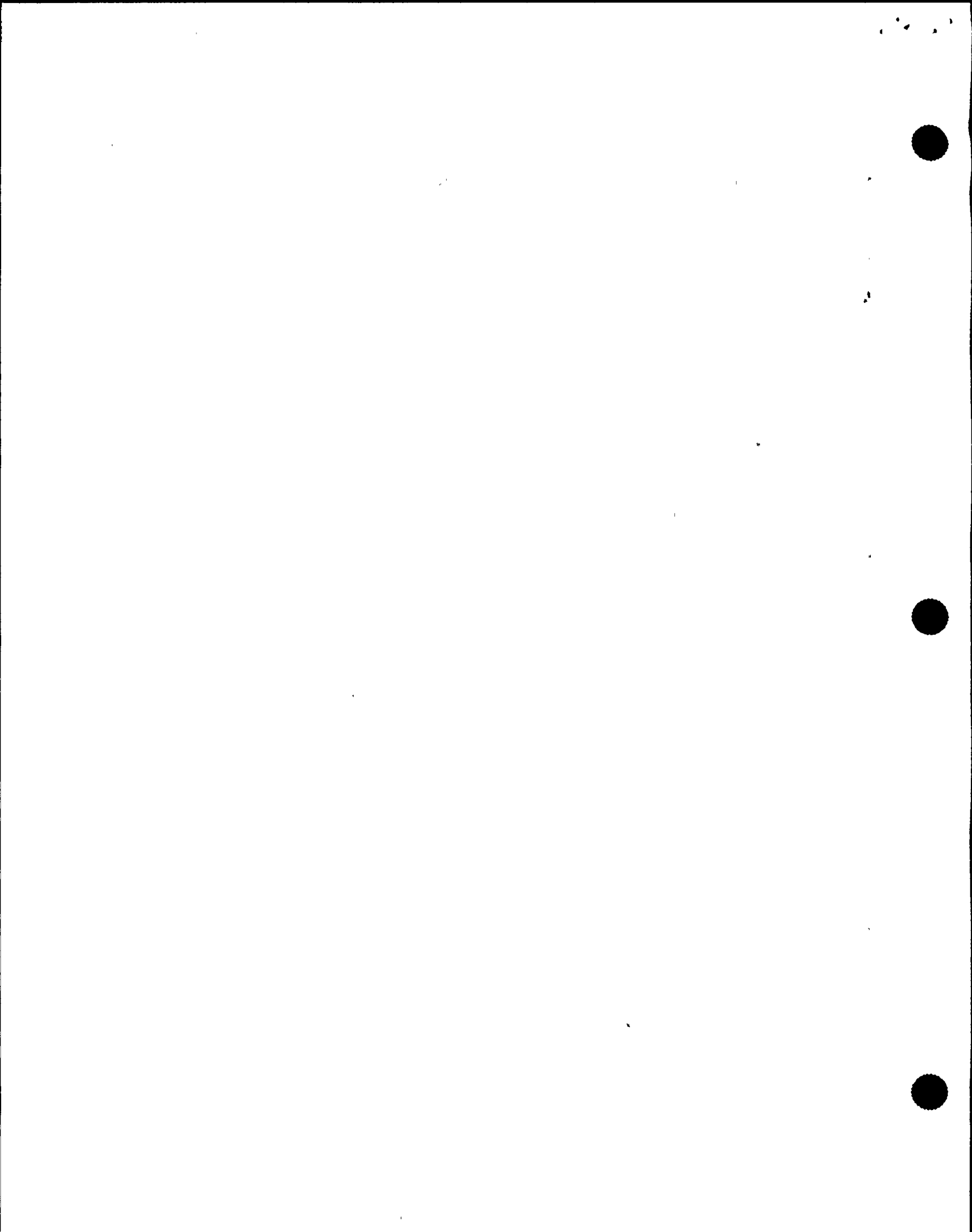
13 Most of the stuff, you know, there's going to be a
14 lot of stuff on the fringes that's going to be gray areas,
15 and it's going to take time to work through.

16 MR. JORDAN: Do you think that's an effective
17 maintenance rule, versus the rule that was proposed by the
18 Staff?

19 I know this is just your own personal opinion.

20 MR. ADER: I'm going to have to wait until I see
21 it in the reg guide. There's a lot of concerns. I
22 expressed a lot of concerns when I was -- when we were
23 directed by the Commission to -- to develop a rule along
24 this line.

25 There's a lot of areas that need to be worked out,



1 as far as what constitutes effective monitoring and what
2 level you need to monitor.

3 It's a new area. It's a new way of doing
4 regulation. I believe that's how the Commission wanted to
5 go.

6 If taken too far, you could monitor down to the
7 component level, you could monitor down to vent and drain
8 valve. I think you can overwhelm everybody, and one of my
9 concerns is a potential to be taken too far.

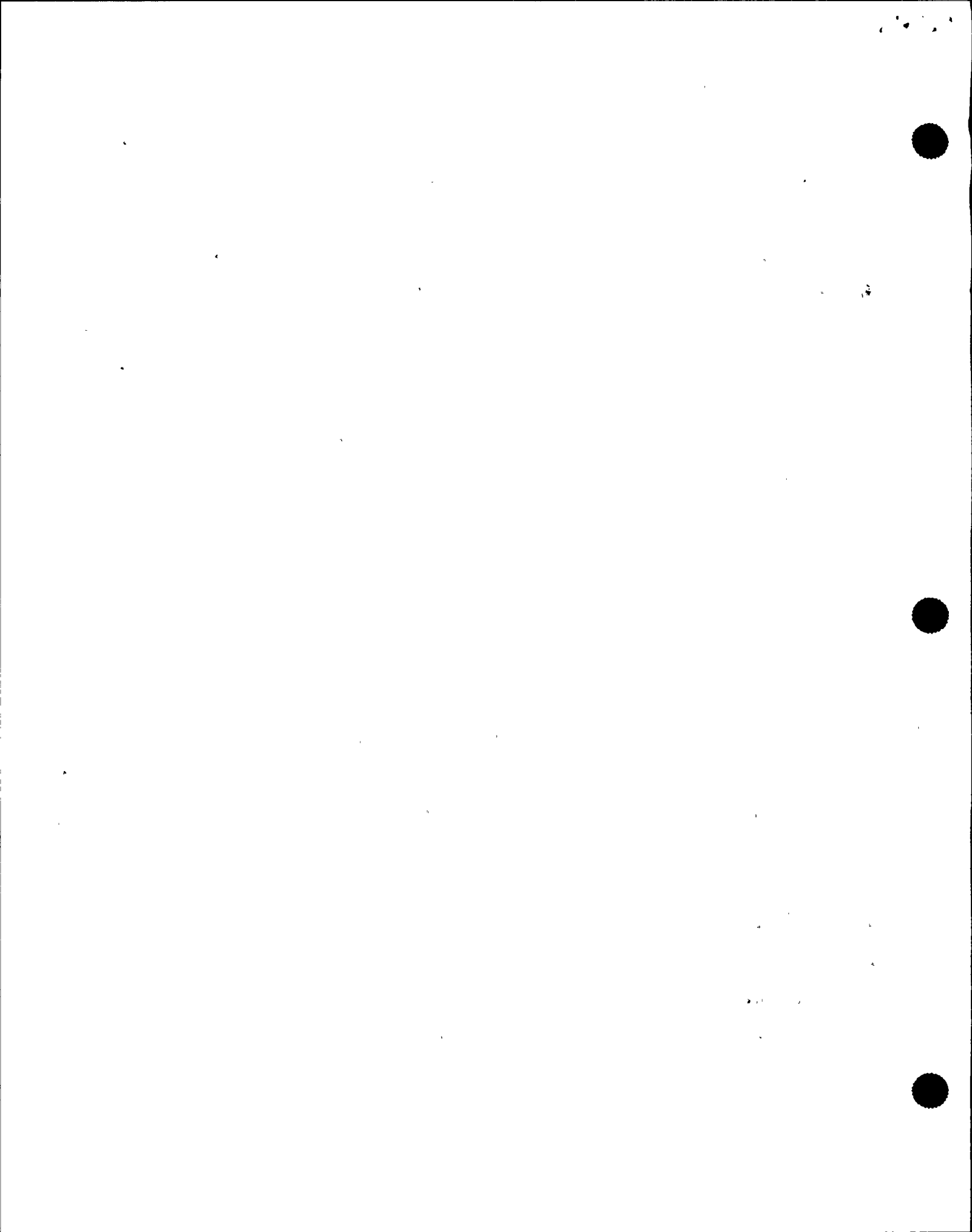
10 I think there's a lot of monitoring you can do,
11 can be effective, if performance indicators imposed on some
12 safety system monitoring, which if you focus on the right
13 things and you track them, I think you will tend -- you will
14 tend to be more sensitive to the -- meeting performance.

15 If you go too far down, you can say you can
16 overwhelm it and can lose sight of what's really important.

17 MR. JORDAN: Are you familiar with what happened
18 at Nine Mile?

19 MR. ADER: Vaguely. I was on vacation when it
20 happened, and by the time I got back, I had enough piles of
21 paper.

22 MR. JORDAN: I think that maybe I should just tell
23 him what happened, so he gets a feel for what happened, the
24 fact that they lose five UPSs, uninterruptible power
25 supplies, at the same time, which took down all their rod



1 position indications, caused them to have a reactor scram,
2 caused them to get into sections of their EOPs where there
3 was no equipment or instrumentation that would allow them
4 initially to get through it until they got their UPSs back,
5 because there was no what I'll call safety-related equipment
6 or instrumentation that they had that would indicate rod
7 positions, and I guess -- then I look and I see that this
8 was -- as far as reliability of the UPSs, up until this
9 failure, they would probably be considered very reliable.

10 There was recommendations -- there was indications
11 that -- by the vendor manual -- that maintenance should have
12 been done that wasn't done that caused the UPSs to go down.

13 Is there, by this rule, that maintenance
14 recommendation, the failure to do that would have been, by
15 the rule, right now, would be okay as long as they have a
16 reliable system?

17 Is that the way it reads?

18 MR. ADER: It would leave what maintenance they do
19 to them, as long as they meet the reliability.

20 Whether that's an issue, whether some or all of
21 that should have been safety-related, because it was needed,
22 or whether -- I guess I have generally looked at things, if
23 they were that important, they would have most likely been
24 safety-related.

25 Sometimes people get into issues that something



1 was misclassified, and even what was on the books, that's
2 going to happen.

3 MR. CONTE: Well, the issue is not how you
4 classify it. It's how you treat it. If it were kind of all
5 ingrained, then you classify it first, and that determines
6 how you treat it, and that's the problem here.

7 MR. JORDAN: I don't know their classification.

8 I was looking at if the maintenance rule takes
9 into account non-safety-related as well as safety-related,
10 you know. The application of the maintenance rule in this
11 area would be the same.

12 MR. CONTE: Well, the thing I'm getting out of
13 this is that, with respect to the UPSs and some specific
14 recommendations on a particular component, if it doesn't
15 manifest itself in affecting the reliability and the
16 availability, it's going to get missed.

17 Now, how important is it? You know, each licensee
18 has a responsibility for all the equipment. If they want
19 their plant to stay online, they're going to have to make a
20 determination as to how important it is.

21 What I'm hearing today from the rule is that it's
22 still susceptible as to whether these UPSs would be
23 included.

24 MR. ADER: The rule, in principle, my view of it
25 would be -- and I say "in principle," because the



1 implementation is going to be harder than it would appear on
2 the surface -- that the more important something is -- you
3 have to monitor to provide reasonable assurance that it
4 fulfills its function.

5 The more important it is, the more monitoring
6 you're going to have to do.

7 Some systems, things will fail, and you know
8 they're going to fail, and they can fail, and it still
9 provides the availability or reliability you count on.

10 Other systems, you cannot afford a failure.

11 MR. JORDAN: In the UPSs, in other words, you're
12 saying you can have -- if there is a AC/DC power supply and
13 as long as the output of the UPSs is still viable, the DC
14 supply could be unreliable and continue to be unreliable as
15 far as a monitoring practice.

16 As long as the output of the UPSs is okay, that
17 their maintenance then would be considered okay on that
18 system.

19 Do you understand what I'm saying?

20 The DC power supply keeps going away constantly.

21 As long as the AC is there and the output of the
22 UPSs is there, the reliability of the UPSs is there, then
23 their monitoring of the output of the UPSs, if that's the
24 criteria, says it's okay, and yet, they keep challenging the
25 DC power supply, and we'd say that's an okay monitoring



1 system.

2 MR. ADER: The output of the UPSs is what you're
3 really concerned about.

4 MR. JORDAN: Right.

5 MR. ADER: The DC is only one means of getting you
6 that. You can go to redundant -- the more redundancy you
7 have, the less important any one train becomes.

8 Some components within a train may not be
9 important.

10 Your description of what happened was basically
11 about where I was with what happened.

12 It's hard to say, with any of those rules, the
13 first time, whether it would have -- you know, there's a lot
14 of -- under any rule, whether the rule requires it but did
15 they implement the rule?

16 A lot of the problems have always been
17 implementation of something, not lack of a rule being there.

18 MR. CONTE: Okay.

19 You don't have anything?

20 MR. JORDAN: No.

21 MR. VATTER: No.

22 MR. CONTE: Okay.

23 With that -- you have provided a copy of the
24 maintenance rule and SECY-91-110. If there is nothing else,
25 we're off the record.



1 [Whereupon, at 11:55 a.m., the interview was
2 concluded.]
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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: Charles Ader

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.

Marlynn Estep

Official Reporter
Ann Riley & Associates, Ltd.



OFFICIAL TRANSCRIPT OF PROCEEDINGS

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

Title: Interview of: Charles Ader
(Closed)

Docket No.

LOCATION: Bethesda, Maryland

DATE: Monday, September 9, 1991 **PAGES:** 1 - 39

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ADDENDUM

<u>Page</u>	<u>Line</u>	<u>Correction and Reason for Correction</u>
20	6	change "present" to "prevent" - incorrect word in transcript
22	12	"assistance" should be "system" - incorrect word in transcript.
26	14	"THE WITNESS" should be "MR. ADER"
27	22	"implantation" is misspelled - "implementation"
30	17	"Bill Brach" is the correct spelling

Date 10/17/91 Signature Charles E. Ader

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1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

3 ***

4 INCIDENT INVESTIGATION TEAM

5
6 -----X

7 INTERVIEW OF: :

8 CHARLES ADER :

9 [CLOSED] :

10 -----X

11
12
13 U.S. Nuclear Regulatory Commission
14 Conference Room 100
15 The Woodmont Building
16 8120 Woodmont Avenue
17 Bethesda, Maryland

18
19 Monday, September 9, 1991

20
21 The above-entitled interview commenced in closed
22 session at 11:04 O'clock a.m.

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PARTICIPANTS:

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CHARLES ADER, Interview

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P R O C E E D I N G S

INTERVIEW OF CHARLES ADER

. [11:04 O'clock a.m.]

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4 MR. JORDAN: My name is Mike Jordan. I'm with the
5 NRC, out of Region III.

6 MR. VATTER: Bill Vatter. I'm from INPO.

7 MR. CONTE: I'm Rich Conte, from Region I.

8 MR. ADER: Charles Ader, with Research

9 MR. JORDAN: What branch, what section?

10 MR. ADER: Severe Accident Issue Branch, the
11 Branch Chief.

12 MR. JORDAN: Okay.

13 MR. CONTE: You have some documents here. Why
14 don't you explain what you're bringing to us?

15 MR. ADER: Okay. I've been requested to bring a
16 copy of the Final Maintenance Rule, as published, which is
17 the thin copy, out of the Federal Register; and have been
18 requested to bring the SECY paper that went to the
19 Commission with staff recommendation on the Maintenance
20 Rule.

21 It was an April 26th paper, SECY 91-110, which
22 contains the staff recommendation on the need for a rule,
23 contained an evaluation of, I believe it was five criteria
24 the Commission had laid out for the need for the rule.
25 Excuse me. Four criteria the Commission had laid out in an



1 earlier staff requirements memo, criteria that they wanted
2 the staff to address.

3 MR. CONTE: Okay. We'll get into the details --

4 MR. ADER: Okay.

5 MR. CONTE: -- positions, what have you, a little
6 later.

7 MR. ADER: It also included two alternate
8 maintenance rules per Commission direction and a regulatory
9 analysis to support the rules.

10 MR. CONTE: Okay. Why don't you keep that in
11 front of you in case you need to refer to it?

12 MR. ADER: Okay.

13 MR. CONTE: By way of introduction, would you
14 describe, if any, your involvement in the event of August
15 13th at Nine Mile 2, with respect to the site area
16 emergency?

17 MR. ADER: I had no involvement.

18 MR. CONTE: Okay. Have you had any involvement,
19 we're aware you've had some involvement with the maintenance
20 rule, but how about the Salem ATWS actions from the generic
21 letter 8328 with respect to "important to safety"
22 classification and the handling of vendor-related
23 information?

24 MR. ADER: I had no involvement in the Salem ATWS
25 event.



1 I had some involvement at the Commission level in
2 the "important to safety."

3 MR. CONTE: Okay. Very good.

4 All right. Well, before we get into the
5 maintenance topic, let's talk about the maintenance, the
6 "important to safety" issue.

7 Shortly after the TMI-2 accident, the NRC staff
8 encouraged licensees to create a third classification
9 scheme, if you will, "important to safety," a kind of grey
10 area between "safety-related" and "non-safety-related,"
11 keeping in mind that "safety-related" is a subset of the
12 "important to safety" concept.

13 Could you briefly explain your involvement, or
14 your involvement at this point, with "important to safety"?

15 MR. ADER: Okay. And this is sometime back, so
16 based on memory, hopefully I'll get most of the information
17 correct.

18 I was on Commissioner Roberts' staff for the
19 Commission, and there were, I believe, two staff papers that
20 came up resolving, or with recommendations to resolve the
21 "important-to-safety," "safety-related" issue. It was one
22 that's been in a lot of controversy, I think both inside and
23 outside the agency.

24 The first, well, the papers were staff
25 recommendations. The first one came up. The Commission



1 sent it back to the staff to rework. I'll back up a step.

2 The issue came up, I believe it was on Shoreham,
3 also. And the Commission, in an action on Shoreham, came up
4 with a, I won't say a definition, but they said they had
5 understood "important-to-safety" was a broader set than
6 "safety-related," but that it should be only those,
7 "important-to-safety" would only be for that equipment
8 systems that had explicitly been called out as such with
9 requirements that had been explicitly put on that equipment.

10 To be correct, you'd need to go back and look at
11 the Commission decision on that. They had asked staff to
12 send up papers resolving the issue through possibly
13 rulemaking. They got one paper up. It didn't follow the
14 guidance that the Commission had given. Sent it back, asked
15 for a second paper. It came up. And I think, at that time,
16 there was a feeling that it wasn't an issue as much, and the
17 paper was never acted on.

18 MR. CONTE: Okay. For the record, I believe the
19 first paper that you're talking about was a 1985 SECY paper.
20 We have a copy of that.

21 We also have a copy of the 1986 SECY paper which
22 was the rework on the '85 SECY paper. And that's our record
23 stops.

24 And I guess what you're telling us is that they
25 made a, the staff made a re-proposal to the Commission, and



1 really never went any further, because there was no need to
2 make a rule?

3 MR. ADER: Well, there was, it was controversial
4 at the time. There was different views on it. I don't
5 think there was a clear view by the Commission as a majority
6 where they wanted to go.

7 Several Commissioners did vote on the paper. I
8 think it was 86 or 164 or something like that.

9 MR. CONTE: Something like that. Do you remember
10 what the vote was to reject it, or accept it?

11 MR. ADER: I don't remember the context of the
12 paper, so whether it was an approval or not -- .
13 Commissioner Roberts put out a vote sheet. There had been
14 some work between the offices to try to come up with a
15 majority position. Commissioner Roberts' office took the
16 lead, put out the vote sheet with his views on the subject
17 and the direction staff ought to go. As I remember,
18 Commissioner Carr voted, and I don't remember there being
19 three votes.

20 MR. CONTE: Do you remember what the Roberts view
21 was, and do you share that view, or is it different? I
22 guess we're primarily interested in your view. But could
23 you explain either, or all of the above?

24 MR. ADER: It's been long enough I don't remember
25 what was in the vote sheet.



1 MR. CONTE: Okay.

2 MR. ADER: To try to give you the flavor of it the
3 best I can, it was agreeing that there may be areas that
4 "important-to-safety" is a broader set. One of the
5 controversies is whether they were identical or whether they
6 were different. Some took the position that "safety-
7 related" and "important-to-safety" were the identical set.
8 Others took the view that "important-to-safety" was a
9 broader set.

10 I think the view was that generally, in the
11 regulation where we've had requirements for different things
12 outside of "safety-related," we've generally said that. And
13 there was confusion. There were various places that used
14 the words "important-to-safety" and there was places that
15 used the words "safety-related." They were not always used
16 consistently. And the view was they ought to go back and
17 clean up the regulations using the words "safety-related,"
18 not using the words "important-to-safety," but trying to
19 explicitly say where there are requirements for equipment,
20 not safety-related, but we had requirements for, we should
21 be very explicit about what that was.

22 MR. CONTE: Was at least that action taken to
23 clean up the regulations with respect to using the
24 terminology "important-to-safety" versus "safety-related"?

25 MR. ADER: That would have come out of the



1 Commission action. The Commission did not act, did not act
2 on the paper, so the overall --

3 MR. CONTE: Fell by the wayside?

4 MR. ADER: -- cleanup did not happen.

5 MR. CONTE: All right.

6 MR. ADER: There may have been situations where
7 individual ones have been cleaned up. I don't remember if
8 the Part 21, 55(e) changes. I think it may have been
9 changed in there. I believe it was.

10 MR. CONTE: Several years ago, at least as a
11 member of the NRC staff, I had gotten the word that I was
12 discouraged from using the term "important to safety."

13 Several years ago kind of dates back to shortly
14 after the 1986 SECY paper.

15 Was there anything official about that? Do you
16 remember any Commission discussions with the staff that the
17 Commission, at least verbally, directed the staff, or maybe
18 in writing --

19 MR. ADER: No.

20 MR. CONTE: -- not to use "important to safety"?

21 MR. ADER: I'm not aware of any verbal or written
22 direction.

23 I think, as I remember, the -- the tone of the
24 position the Commission was taking is that safety-related
25 was well defined. Everybody knew what that was.



1 Important to safety was not well defined, and
2 every time that was used, there was confusion, and his
3 recommendation, if I remember right, was that in the
4 revisions to the regulations, they ought to use "safety
5 related" where we meant that and take out the words
6 "important to safety."

7 Now, whether that -- that idea flowed down, where
8 you said you had gotten the word informally --

9 MR. CONTE: One last question in this area: I
10 don't want to belabor the point, but I understand that there
11 are different views on whether or not the subsets -- or the
12 set of important to safety and the subset safety related
13 were identical or not.

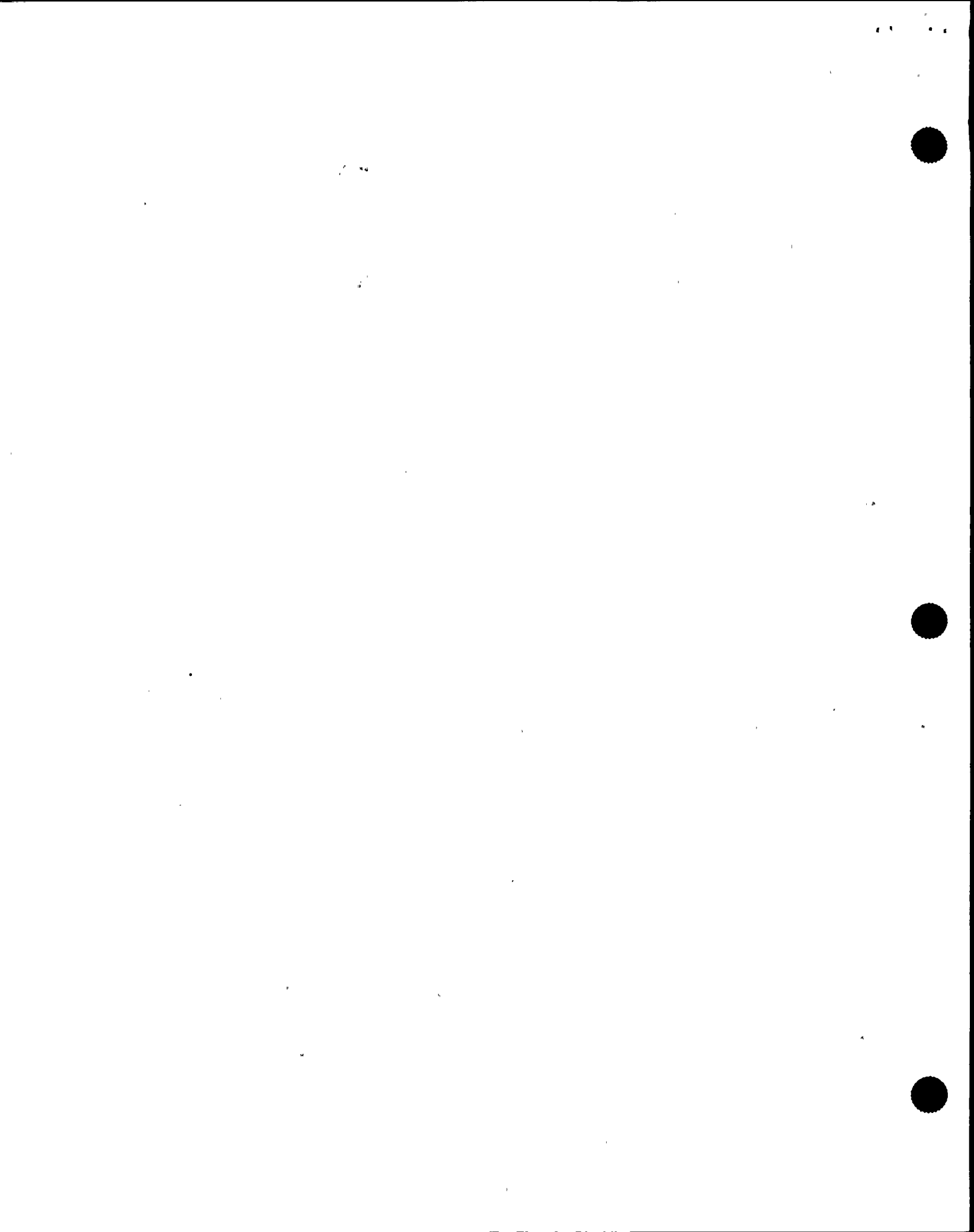
14 There were definitions proposed in that SECY
15 paper, the '86 SECY paper. Do you know, at least, whether
16 the Commission was receptive to those definitions, or is
17 that part of the controversy?

18 MR. ADER: That was part of coming to closure, and
19 at this point in time, I don't think it would be fair to try
20 to say what the other Commissioners at that time agreed to
21 or didn't agree to.

22 MR. CONTE: Okay.

23 In your mind, is there a regulatory basis for
24 "important to safety" classification?

25 MR. ADER: My -- my dealings had been -- or my



1 usage of the terms, they had always been used the same, that
2 "safety related" had been -- or "important to safety" and
3 "safety related" were the same set.

4 If you came up with another set of words, I think
5 there are clearly a lot of areas that the agency has put
6 regulatory positions out that are not -- for equipment
7 that's not safety-related.

8 I mean I think the "important to safety" term has
9 gotten very -- very confusing, because there are some parts
10 of the regulations that use it, in my belief, in the way
11 that "safety related" is used.

12 I think, maybe because people have not been using
13 it of late, a lot of the confusion, a lot of the controversy
14 has -- has not been there.

15 MR. CONTE: Have you had any direct involvement in
16 the classification of equipment like rod position
17 indication, instrumentation, EOP parameters, and their
18 associated instrumentation or power supplies?

19 Have you had any involvement in that, and do you
20 know of any staff positions, as such, on the classification
21 of that kind of equipment?

22 MR. ADER: No, not specifically that set of
23 equipment. I have been involved in the past in
24 classifications of -- of equipment.

25 MR. CONTE: Like what?



1 MR. ADER: I had worked for an AE before I joined
2 the agency. So, we generally would classify it.

3 As you ordered equipment or designed equipment or
4 did system design, you made a classification, whether it was
5 safety-related, non-safety-related.

6 MR. CONTE: Any involvement or experience with a
7 gray area, or was it -- in your function, working with the
8 AE, was it always black-and-white, safety-related versus
9 non-safety-related?

10 MR. ADER: No. There were clearly areas that
11 you'd look at, and it wasn't clear whether it would be
12 safety-related or not.

13 My experience, generally we erred in making it
14 safety-related. It was easier, if you buy it safety-
15 related and you decide later it didn't need to be, to
16 downgrade it or to change the designation than if you had
17 not bought it.

18 MR. JORDAN: Does the vendor, does he specify
19 what's safety-related and what's not safety-related, or is
20 that up the AE to determine?

21 MR. ADER: Within their scope, they specified what
22 was and what was not safety-related. A lot of the plants,
23 depending on -- depending on the plants, NSSS and AEs have
24 different rules on what they supply.

25 A lot of the containment, containment designs,



1 some of the gaseous waste systems may have been safety-
2 related. That's generally within -- if that's within the
3 AE's scope on that project, that would be up to the AE to
4 specify.

5 MR. JORDAN: But the determination is up to the
6 AE, also?

7 MR. ADER: For that stuff within his scope. The
8 NSSS would specify within his scope all the safety-related.

9 MR. JORDAN: Okay.

10 MR. VATTER: Seems like the utility would have a
11 determination.

12 MR. ADER: Clearly. I mean the AE acted as agent
13 for the utility. The utility -- you know, ultimately, it's
14 the utility that makes the decision.

15 MR. VATTER: So, that AE is just making
16 recommendations.

17 MR. ADER: If you look at it like that, yes. The
18 utility can override an AE.

19 But a lot of things, they -- they hire the AE --
20 especially back when I was involved, in the early '70s, they
21 hired an AE for their expertise, and my experience is,
22 generally, they went with the judgement of the AE.

23 I think, as safety-related got used more, what was
24 safety-related and what wasn't became clearer, just through
25 practice and experience.



1 MR. CONTE: Okay.

2 I'm pretty much done with "important to safety."
3 I'm ready to go on to the maintenance role, unless there's
4 other issues you guys want to pursue.

5 [No response.]

6 MR. CONTE: Hearing none, why don't you give us
7 kind of a summary of where the agency is on the maintenance
8 rule and perhaps highlight your involvement in it for
9 whatever and if you can give us an understanding of the
10 apparent conflict between the staff and the Commission on
11 whether or not the rules should be issued.

12 MR. ADER: I was involved from a couple different
13 ends. Again, working for Commissioner Roberts, I was
14 involved in the early papers that came up on maintenance.

15 There were some policy statements -- I think two
16 policy statements -- that were put out. There was a
17 proposed rule that came up and a recommendation for --
18 trying to remember now.

19 I think there was a recommendation for a final
20 rule back in the spring of '89.

21 I became involved, on the staff level, with
22 maintenance a little over a year ago. When I joined
23 Research, I had responsibility for the maintenance rule and
24 development of it.

25 At that time, there had been, as I say, a proposed



1 rule put out. There had been a draft reg guide put out for
2 comments.

3 A final -- final rule had gone up to the
4 Commission in -- again, I believe it was the spring of '89.
5 The Commission, at that time, chose not to issue it, because
6 -- for a number of reasons.

7 I think my sense was because the reg guide had not
8 been issued yet, and they felt, since the reg guide was the
9 implementing document and contained most of the -- the
10 information on implementation of the rule, they directed
11 staff to issue that reg guide for comments and then come
12 back in 18 months with the final recommendation and, in the
13 interim, issued a revised policy statement presenting to
14 industry -- laying out this approach.

15 Again, I'm trying to remember the dates. It's in
16 the SECY paper I brought. I think it's sometime in the
17 spring of '90.

18 The Commission had -- yes, on April 13, 1990, the
19 staff had forwarded to the Commission, at their request,
20 four criteria to be used in determining a need for a
21 maintenance rule, and the Commission approved those four
22 criteria and also indicated there were several other factors
23 they would use in making up their -- their mind on any new
24 rule.

25 In around May of '90, the Commission directed



1 staff to -- in not only finalizing the -- what was kind of
2 known as the process-oriented maintenance rule, to issue or
3 develop a proposed reliability-based maintenance rule.

4 So, my involvement from around April-May 1990
5 until this past summer, end of June, was developing the
6 proposed reliability-based maintenance rule and finalizing
7 the process-oriented maintenance rule, developing associated
8 reg guides for both of those regulatory analyses.

9 MR. CONTE: We will be getting into what equipment
10 was covered by this mention of the rule, but before we get
11 to that, can you summarize the controversy?

12 Was it a controversy between the Staff and the
13 Commission? It sounded to me like the Staff was against it
14 and the Commission wanted it, wanted the rule.

15 Could you summarize the opposing positions on
16 this?

17 MR. ADER: Well, I would have to agree that the
18 Commission wanted a rule because they've issued a rule, so I
19 mean their view obviously was that a rule was needed.

20 Again, going back, Staff at Commission's request
21 proposed four criterias to be used to judge the need for a
22 maintenance rule. In the recommendation that went back up
23 in April Staff looked at the four criteria. They came to
24 conclusions to each of those criteria. They felt that they
25 had -- Staff's position is those criteria had been met and



1 the history of it, the way it had been laid out is here were
2 the criteria that if met would obviate the need for a rule,
3 so Staff came to the conclusion on that basis that those
4 criteria having been met there was not a need for a rule.

5 MR. JORDAN: You mentioned in '79 or excuse me,
6 '89, the original maintenance rule went up. The Commission
7 said they wanted the Reg Guide to be issued before
8 maintenance rule.

9 Did that Reg Guide ever get issued?

10 MR. ADER: It was issued in August of -- I believe
11 it was August of '89. It was a draft Reg Guide so it was
12 issued for public comments at that time.

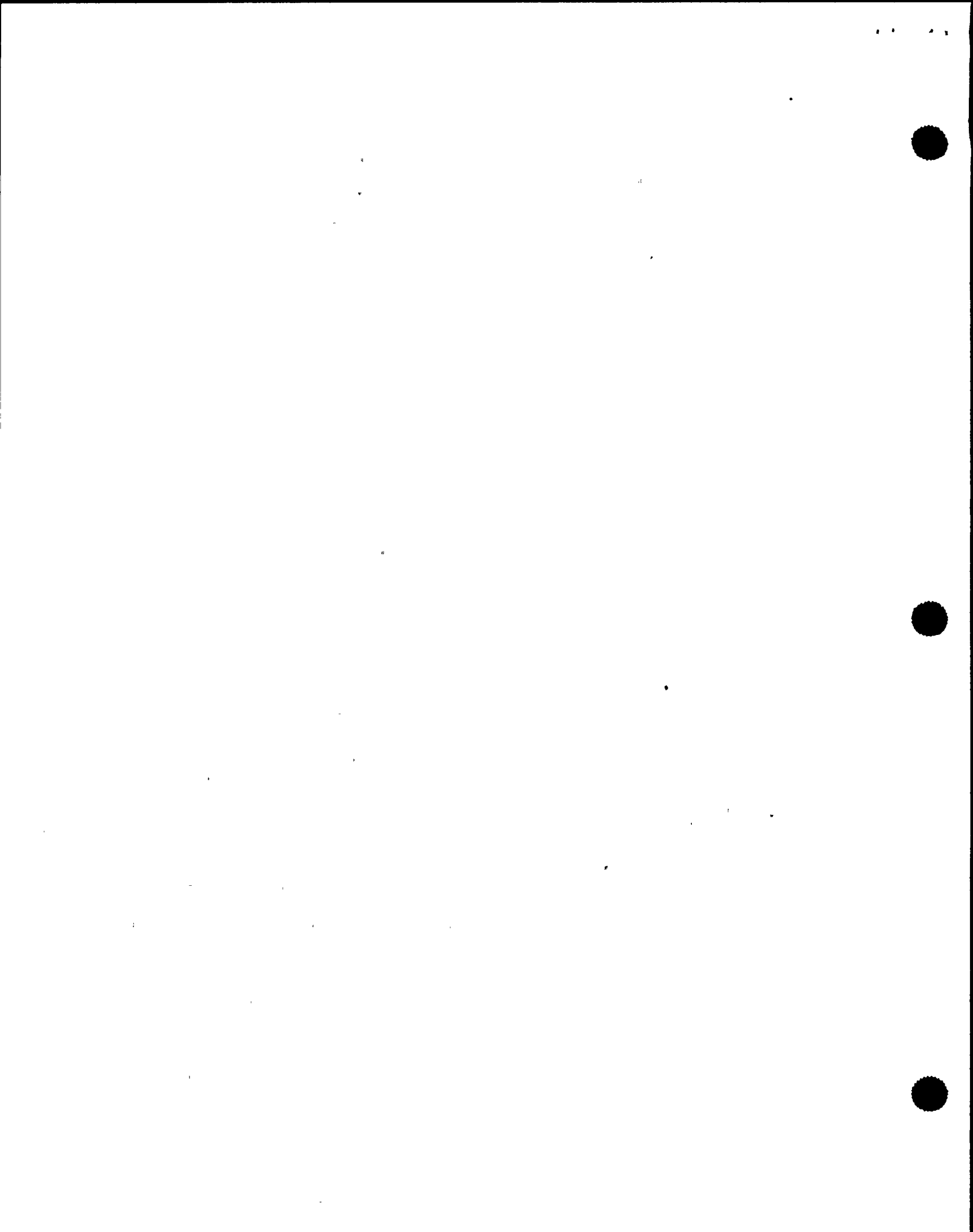
13 MR. JORDAN: For public comments. Did we then
14 take the public comments and issue the Reg Guide or did the
15 original Reg Guide went away as a result of the new
16 maintenance rule?

17 MR. ADER: It went away as a result of the new
18 maintenance rule and the package that was sent up in April
19 had a finalized version of that Reg Guide.

20 You wouldn't issue a Reg Guide without a rule.

21 MR. JORDAN: Okay, so we got another rule and then
22 additional Reg Guides we're going to be going to issuing to
23 implement the new rule.

24 MR. ADER: Yes. There's a two year, they laid out
25 a two year time period for Staff to issue a draft and a



1 final Reg Guide. There's a five year implementation on that
2 rule so that would give the Licensees three years after
3 issuance of the Reg Guide to implement the rule, and that is
4 being worked on. That is being done now by a different
5 group in research.

6 MR. CONTE: Okay, so the next revision of the Reg
7 Guide is going to be the implementing instructions for the
8 rule?

9 MR. ADER: It will be the Reg Guide implementation
10 of the rule that the Commission approved, issued in July.

11 MR. CONTE: Will all licensees have to follow that
12 Reg Guide or will they, can they -- the standard caveat in
13 all Reg Guides is this is a method acceptable to the Staff.
14 Other methods may be acceptable.

15 MR. ADER: Yes, I think that is still going to be
16 true because it only going to be a Reg Guide.

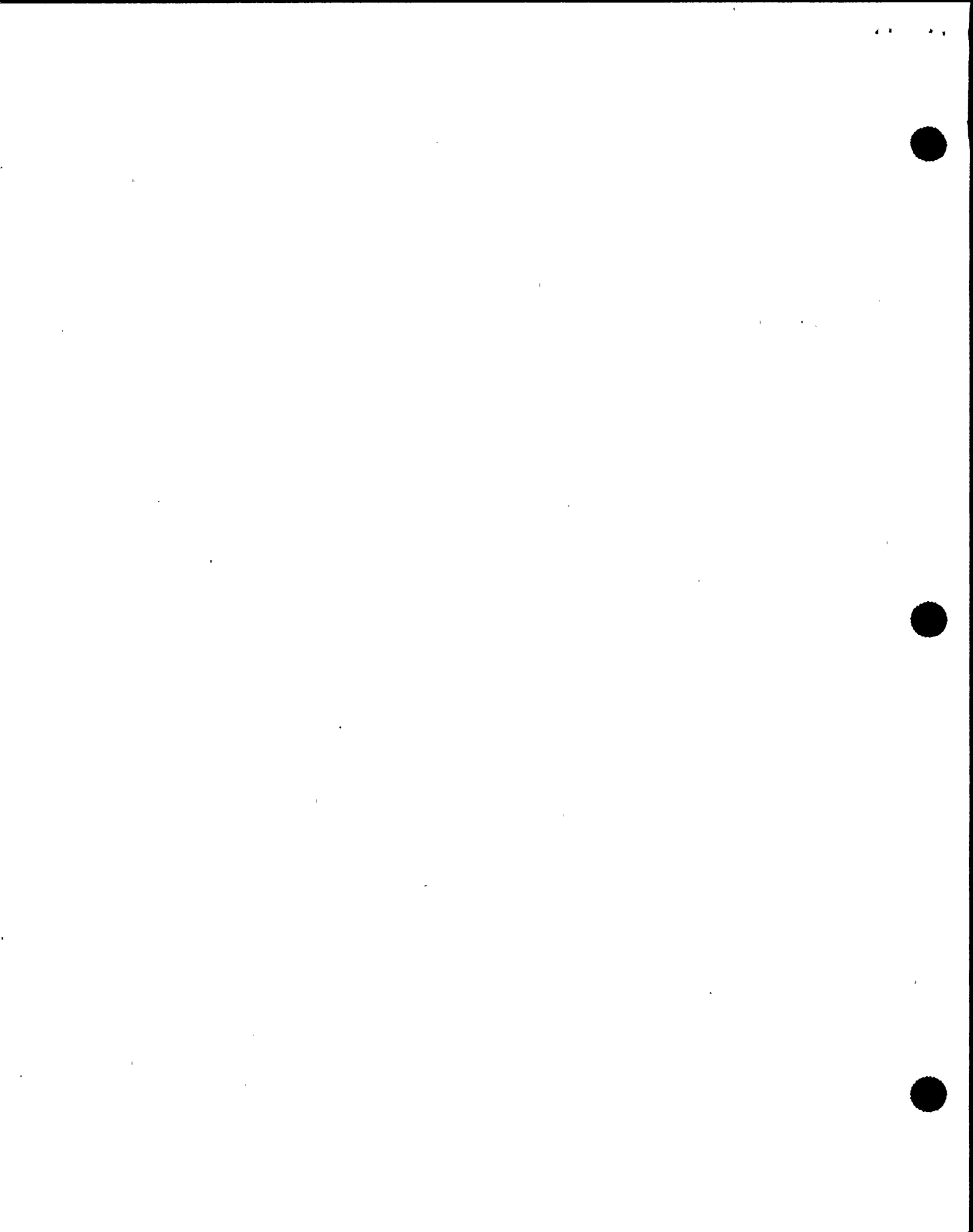
17 MR. CONTE: So the licensee will either, could
18 either adopt the Reg Guide or propose their own method?

19 MR. ADER: Yes.

20 MR. JORDAN: There's no proposal to revise the
21 maintenance rule to require the Reg Guide that you know of?

22 MR. ADER: Not at this time. Not that I am aware
23 of.

24 MR. CONTE: Okay, now what scope of equipment are
25 we talking about in this maintenance rule, in the contents



1 of safety-related and non-safety related and important to
2 safety?

3 MR. ADER: It would clearly include safety-
4 related. The definition of safety-related is in there or
5 what has become the definition of safety-related, which is
6 in Part 100 and it's in Part 21, 50.49 EQ, so that is in
7 there and that goes beyond that and it includes equipment
8 that would be -- I might have to look at the exact words --
9 used in mitigating transients or accidents or words to that
10 effect.

11 It would include some of the station blackout
12 equipment that may be non-safety related. It would include
13 the ATWS equipment that is non-safety related, other systems
14 that licensees have in a plant that they use to mitigate
15 accidents.

16 MR. CONTE: Could you find the exact words for the
17 record?

18 MR. ADER: Yes, just a second. Okay, it's --

19 MR. CONTE: Could you read them, please?

20 MR. ADER: Yes. It's 50.65 -- I guess it's
21 subsection (b), "the scope of the monitoring program
22 specified in paragraph (a)(1) of this section shall include
23 safety-related and non-safety-related structures, systems
24 and components as follows."

25 It has safety-related systems, structures and



1 components, which then follows the definition of that from
2 Part 100; non-safety related structures, systems, and
3 components (1) that are relied upon to mitigate accidents or
4 transients or are used in plant emergency operating
5 procedures, EOPs in parentheses or (2) whose failure could
6 present safety-related structures, systems, and components
7 from fulfilling their safety-related function; or (3) whose
8 failure could cause a reactor scram or actuation of a
9 safety-related system.

10 MR. CONTE: Okay. Let me give -- just let me give
11 you some design information with respect to Nine Mile 2.

12 On rod position indication the read switches and
13 the display lights have their power supplies from
14 uninterruptible power supplies that are classified as non-
15 safety related.

16 The uninterruptible power supplies are basically
17 an AC and DC input sources generating I think 120 volt AC
18 output with some logics in there to be able to get a
19 maintenance supply AC to bypass that -- almost like three
20 sources of power but non-safety classification, okay?

21 The APRMs, the average power range monitors, we're
22 talking of the boiler now -- BWR-5 -- not that it makes that
23 much difference with respect to APRMs but those power
24 supplies are non-safety power supplies.

25 I guess we have established at this point that a



1 failure of one of those UPS's -- I believe it's the A, may
2 well indeed cause a reactor trip.

3 It sounds to me -- I'm going to make a conclusion
4 here. You can let me know if you agree or disagree -- it
5 sounds to me that these non-safety UPS's -- by the way the
6 other UPS's supply power to balance of plant instrumentation
7 in the control room, not so much safety-grade
8 instrumentation but balance of plant and the full core
9 display for rod position indication.

10 It sounds to me that these were all equipments
11 that may fall into one of the scopes of what you just read.

12 MR. ADER: From what you just said I would agree.

13 MR. CONTE: What do they have to do with this
14 equipment now in light of it being non-safety but within the
15 scope of the maintenance rule? What has to be done?

16 MR. ADER: This rule, as it was put out, was a
17 rule of monitoring the effectiveness of maintenance so the
18 rule would require that they monitor the operability and
19 what specifically they will have to do is being worked out
20 in the Reg Guide, at what level they cut that.

21 It is going to be in there but the rule would
22 require that they monitor through some manner the
23 operability of that equipment, unavailability, maybe
24 reliability. It may be some other measure as a way of
25 determining whether their maintenance is effective.



1 MR. CONTE: Then what? Is it going to say some
2 conclusions based on the Reg Guide that you're getting ready
3 to issue? The conclusion is that this equipment is
4 unavailable too frequently? Are there numbers here that
5 we're talking about? Do we have specific criteria that
6 licensees are going to have?

7 MR. ADER: The rule has licensees set goals for
8 their equipment and then monitor against their licensee-
9 established goals. Again, the Reg Guide, we've got about a
10 yearlong schedule to issue it. So a lot of the details at
11 what level are going to be worked out there at the monitor
12 assistance level, the component level.

13 MR. CONTE: Okay. So it's theoretical possible
14 that a non-safety piece of equipment will meet the criteria
15 on availability, perhaps not fall within -- well, it falls
16 within the scope at least from the monitoring point of view,
17 but if it meets this criteria, then really they don't have
18 to do anything special to it, if it's always available, part
19 of the criteria of the rule; is that correct?

20 MR. ADER: That would be my understanding of how
21 it would be implemented.

22 MR. CONTE: Okay. So there may be -- I don't know
23 how to call it -- an isolated or maintenance practice or
24 maybe an unintended overlook or oversight by the licensee or
25 the utility to not implement some particular preventive



1 maintenance recommendation in a vendor level?

2 It may get overlooked, but at this point, it
3 hasn't called an unavailability, so really nothing is going
4 to be done about that. Is that a characterization of this -
5 - use of this availability/unavailability criteria?

6 MR. ADER: The rule, as it got issued, is not now
7 into regulating how they do maintenance. I think the
8 Commission in their attempt did not want to get into how
9 they do maintenance. So the following, that they have
10 procedures, that they have this organizational structure or
11 that, they leave that up to the licensees.

12 Partly, I believe -- and again, I kind of hate to
13 say what the Commission believes or doesn't believe -- when
14 Staff did maintenance team inspections at all of the plants
15 and found that all of the plants, as far as the programs,
16 were satisfactory or good. There were no programs out there
17 that were poor anymore. The implementation overall was
18 good. There may be certain areas that were poor for
19 individual licensees.

20 I believe the Commission looked at that and said:
21 We don't need to get into the regulation of how they do
22 their program. What we want to do now is find a way to
23 monitor the effectiveness of this program in the long-term.

24 MR. VATTER: To me, monitoring is not real clear.
25 It could be just tracking data that is already available, or



1 it could mean identifying new parameters you want to track,
2 like performance of monitoring sometimes involves almost
3 surveillance type activities to collect data.

4 Could you characterize what kind of monitoring is
5 envisioned?

6 MR. ADER: At this point in time, I would not --
7 actually I wouldn't want to characterize it, because that's
8 going to have to be worked out in the Reg Guide.

9 The rule that was issued -- there were two rules
10 that were proposed, the process-oriented rule which had some
11 section on monitoring and feedback, and then a reliability-
12 based rule.

13 The Commission chose out of the process-oriented
14 rule that part on monitoring and feedback. They basically
15 structured the rule through the guidance back to Staff, and
16 then Staff in short order turned it around into the rule
17 that was issued, with full recognition that there was going
18 to be a lot of work in the next two years to define what
19 level of monitoring would be needed.

20 It would make use of the monitoring that's already
21 out there, the surveillance that are being done,
22 inspections, making use of that, to whether a licensee would
23 or would not have to add any new activities would depend on
24 the goals that are set, the ability to meet them.

25 MR. JORDAN: Was this one of the proposed methods



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1 that the Staff sent to the Commission?

2 You said there were two -- the person sent -- I
3 guess, the proposal to the Staff, of the Staff to the
4 Commission, was not to have a maintenance rule. However, if
5 you're going to have a maintenance rule, if it included two
6 alternatives, and one of those was this type of a rule or
7 not?

8 MR. ADER: The Staff said: If you're going to
9 have a rule, we recommend the final process-oriented rule.
10 Now that rule had a section in there on monitoring, not
11 quite like this, but it had covered that issue and a
12 proposed stage of monitoring of that performance. Then it
13 had a lot of requirements on programmatic aspects,
14 engineering support, training, QA, various things like that.

15 The Commission decided to strip the programmatic
16 stuff out and expand the equipment performance monitoring.

17 MR. JORDAN: So equipment performance monitoring
18 in the maintenance rule, the application of it to safety and
19 non-safety is the same. What it's looking for is failures,
20 frequent failures, and resolution of those frequent
21 failures.

22 MR. ADER: Yes.

23 MR. JORDAN: And it doesn't make any difference if
24 it's safety or important to safety or falls within the
25 criteria of whatever it is, 50.65, they're handled the



1 same.

2 MR. ADER: Yes. Well, they're handled the same
3 under the rule and it's monitoring the effectiveness, the
4 goals you set, the monitoring you do -- well, at least in my
5 mind, it's going to most likely vary depending on the safety
6 significance of the system. The goals need to be set
7 commensurate with safety.

8 MR. JORDAN: But how about vendor recommendation
9 on maintenance, preventive maintenance on safety-related
10 equipment? The requirement for the utility to adhere to
11 those vendor-recommended preventive maintenance on safety
12 application, is there any place in the rule that you know of
13 that requires them to do that?

14 THE WITNESS: No, not in the maintenance rule.
15 Don't forget safety-related equipment. Appendix B covers
16 that, and there's a lot of regulatory oversight on safety-
17 related through a number of places. Tech specs, all the
18 tech specs also go beyond safety-related. Appendix B is the
19 big one, and you have corrective action under Appendix B
20 also.

21 MR. VATTER: One thing is that people don't have a
22 tendency to manage the indicators in such a way that
23 emphasis is not placed on safety in an appropriate manner.

24 MR. ADER: That is a concern.

25 MR. JORDAN: What kind of discussion went into



1 that?

2 MR. ADER: The issue was raised that there was a
3 concern that people could manage indicators. I think part
4 of that, again, was left to be worked out in the Reg Guide.
5 It is licensee-set goals. They can set their goals for
6 things that they want to monitor.

7 MR. VATTER: It seems like they could also set
8 goals to monitor the indicators that were easy to manage.

9 MR. ADER: They could. I mean, they need to set
10 goals to provide assurance -- let me go back to the rule for
11 the exact words. "Shall monitor performance or condition of
12 structures, systems or components against licensee-
13 established goals in a manner sufficient to provide
14 reasonable assurance that such structures, systems and
15 components as defined in Paragraph B, are capable of
16 fulfilling their intended function."

17 Now, that unfortunately, sounds good, but actually
18 how that's going to be implemented and what constitutes
19 sufficient to provide reasonable assurance, those issues
20 were raised that these are concerns, and the view was that
21 that -- there's two years, that's why there's a five year
22 implantation, two years to develop a Reg Guide.

23 MR. CONTE: Is the Reg Guide the -- how specific
24 are we going to be here in terms of -- let's say a utility
25 does a good job in setting up goals, and it falls outside



1 the criteria where it demands some attention? What's the
2 nature of that attention?

3 MR. ADER: You mean the equipment performance?

4 MR. CONTE: Yes, the equipment performance proves
5 to be unreliable or unavailable. What does the licensee do?
6 Is it going to be in the Reg Guide or is it going to be
7 highly up to the licensee as to what they need to do?

8 MR. ADER: Again, I have to come back -- this was
9 done -- this rule was done to reflect the Commission vote,
10 the Commission majority's view. It was developed to reflect
11 that, with the understanding that all these types of
12 questions -- you know, the Commission recognized that when
13 they said, go ahead and develop the final rule along these
14 lines. You have to go back to the vote sheets, and you can
15 see where the -- what -- where their guidance was.

16 They recognized there's an awful lot of issues for
17 implementation, and that's why the five year window for
18 implementation, two years for the Reg Guide which gives
19 licensees three years. You know, the issues you've raised
20 and a lot of others were raised as -- we don't know.

21 From this rule, it doesn't say how you would
22 handle that. This is, if you don't meet your goals, you
23 take corrective action. Corrective action could be in your
24 maintenance program. I think there was initially a concern
25 that because this is a new way of doing business on this



1 scale, that if licensees set goals incorrectly, initially,
2 as it went through the implementation process, one
3 corrective action may be to adjust their goals to more
4 correctly reflect the system performance.

5 MR. VATTER: Who would adjust their goals?

6 MR. ADER: Pardon?

7 MR. VATTER: Who would adjust their goals?

8 MR. ADER: They're licensee-set goals, so the
9 licensee can adjust their rules.

10 MR. JORDAN: Do we get notification of goals and
11 adjustments to goals?

12 MR. ADER: The rule, as written, does not require
13 any submittals by the licensees. Again, that was the
14 Commission.

15 MR. JORDAN: Failure to accomplish their goals;
16 there's no notification either?

17 MR. ADER: No.

18 MR. VATTER: How do you handle a situation where
19 the licensee would set goals that weren't sufficient for the
20 challenge?

21 MR. ADER: The sense was that there was -- that
22 the licensees are doing individual plant examinations and
23 IPEs and they're submitting those. They do a lot of other
24 analyses to support station blackout rule or some of the
25 other ones; that they can't totally set goals that were out



1 of line, challenging very low equipment reliability, on the
2 one hand, for implementation of the maintenance rule when
3 they have submitted something to the Commission on the
4 docket, either through an IPE or someplace else, saying, we
5 have this equipment performance or system performance so we
6 don't have a safety issues here because the equipment will
7 perform at a certain level.

8 MR. JORDAN: Is that in there? Is that in the
9 rule; that they can't?

10 MR. ADER: It's not in the rule. It was in the
11 discussions that went behind it, whether -- I don't remember
12 whether we actually reflected that in the statement of
13 considerations at this time.

14 MR. CONTE: What other branches in the NRC are you
15 interfacing with in the development of this Reg Guide?

16 MR. ADER: Primarily the NRR Branch than Bill
17 Branch is the Branch Chief. I can't remember the acronym
18 now.

19 MR. CONTE: That's Division of Licensing
20 Performance and Quality, I think.

21 MR. ADER: But I don't remember the Branch.

22 MR. CONTE: We're going to be talking with Mr.
23 Roe. He's the Division Director. We've got a couple of
24 issues. One of them is the maintenance rule from his
25 perspective.



1 MR. JORDAN: Is the Reg Guide under you?

2 MR. ADER: No, it's not. It was -- I was in the
3 Advanced Reactor Generic Issue Branch that had the
4 maintenance rule. In December, I moved up to Severe
5 Accident Issue Branch, but because of the schedule and the
6 priority on it, I was one of the ones that provided
7 continuity. It went with me, I think, with the recognition
8 that if there was any followon work, that was not the place,
9 Severe Accidents Branch was not where you would think the
10 maintenance rule -- and Bob Baer in the Engineering Issue
11 Branch is the Branch Chief for the Branch that now has the
12 implementation.

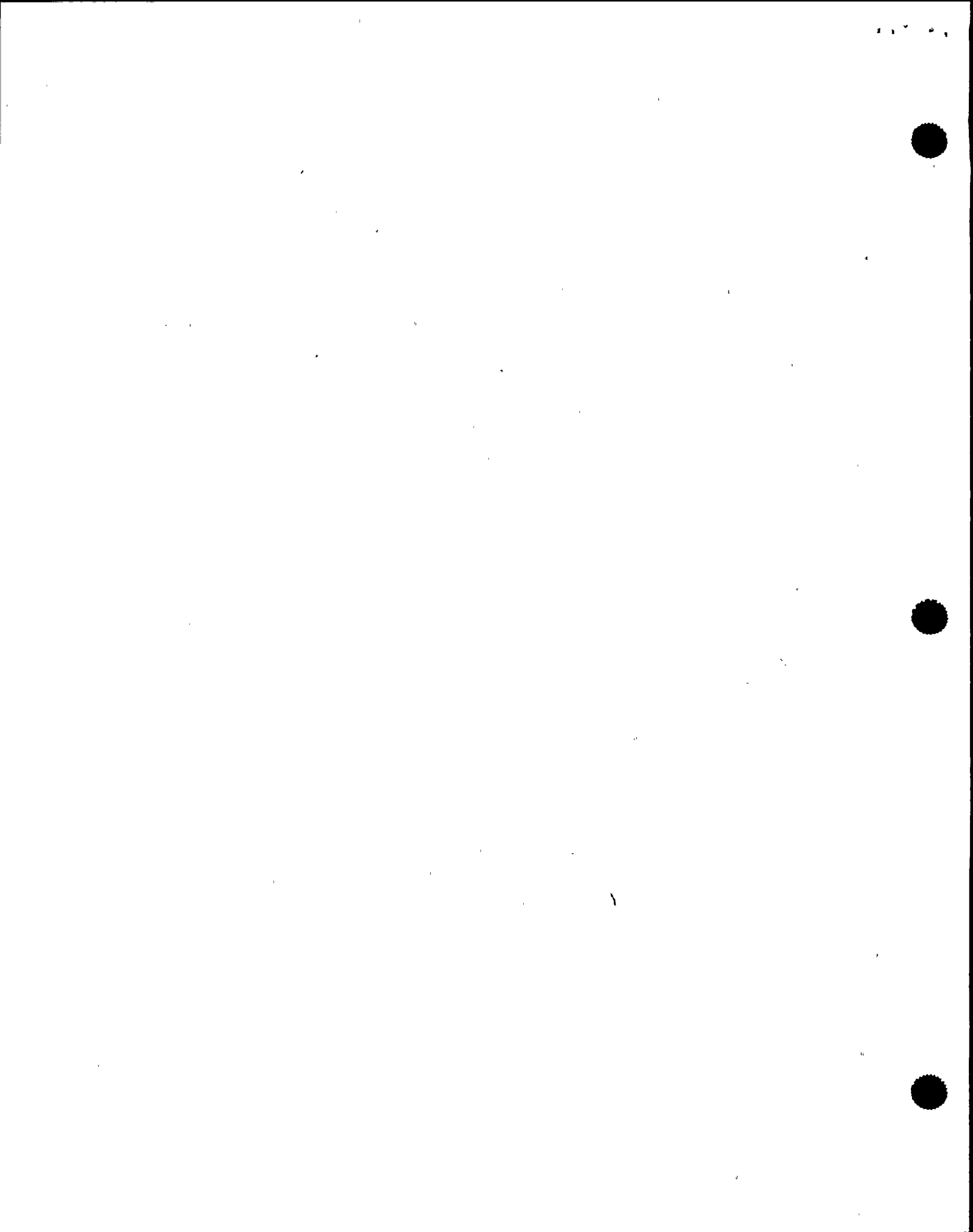
13 MR. CONTE: I don't have anything else. Bill?
14 Mike?

15 MR. VATTER: No, I guess not.

16 MR. JORDAN: No.

17 MR. CONTE: One last question: do you have
18 anything, positive or negative, to offer in this -- the
19 areas important to safety and maintenance area, other than
20 what's already been discussed? Anything you want to revisit
21 to clarify?

22 MR. ADER: No. As I said, I think, before, on
23 important to safety, in that, as you indicated, you had, I
24 guess, informally had gotten the sense that important to
25 safety, not to use -- I think, where we -- in the last few



1 years, I've seen that term used less and less. It's avoided
2 a lot of confusion.

3 People know what safety-related is. If there's
4 something else that's non-safety related and we have
5 requirements on, and you want to discuss station blackout,
6 people being very specific and saying here's what the -- the
7 systems we're concerned about, here's the requirements on
8 those. There's generally very little confusion on that.
9 You use the term, important to safety, and everybody has
10 their own view of what that is and it still creates
11 confusion.

12 You still get a fair amount of discussion about
13 the issue. I have not found anyplace where those terms have
14 been needed to be used, or where we haven't used those
15 terms, we've created confusion by not using them and talking
16 specifically on a system. Maintenance rule is going beyond
17 safety-related. We didn't use the words, important to
18 safety, here, and that's caused no problems.

19 If we had put those words in there, I think it
20 would have created more confusion about what does that mean,
21 what's covered. We used the term safety-related and non-
22 safety related, which includes the following: and we're
23 very specific about what the following was.

24 MR. JORDAN: You think that the industry is going
25 to clearly understand where the boundaries of the



1 maintenance rule are, in time?

2 MR. ADER: Every plant -- I mean, again, it's
3 going to be -- this will be clear, in my view, because this
4 tends to be on a functional basis. If the equipment serves
5 this function, then it's included. If it doesn't serve this
6 function, it's not included.

7 If we had said safety-related and important to
8 safety, I would have no idea of what the scope was. We did
9 that very specifically. We tried to do it by function in
10 the maintenance rule. I think there's going to be some
11 time period, as there was with safety-related, that there
12 would be common understanding of what's on the fringes.

13 Most of the stuff, you know, there's going to be a
14 lot of stuff on the fringes that's going to be gray areas,
15 and it's going to take time to work through.

16 MR. JORDAN: Do you think that's an effective
17 maintenance rule, versus the rule that was proposed by the
18 Staff?

19 I know this is just your own personal opinion.

20 MR. ADER: I'm going to have to wait until I see
21 it in the reg guide. There's a lot of concerns. I
22 expressed a lot of concerns when I was -- when we were
23 directed by the Commission to -- to develop a rule along
24 this line.

25 There's a lot of areas that need to be worked out,



1 as far as what constitutes effective monitoring and what
2 level you need to monitor.

3 It's a new area. It's a new way of doing
4 regulation. I believe that's how the Commission wanted to
5 go.

6 If taken too far, you could monitor down to the
7 component level, you could monitor down to vent and drain
8 valve. I think you can overwhelm everybody, and one of my
9 concerns is a potential to be taken too far.

10 I think there's a lot of monitoring you can do,
11 can be effective, if performance indicators imposed on some
12 safety system monitoring, which if you focus on the right
13 things and you track them, I think you will tend -- you will
14 tend to be more sensitive to the -- meeting performance.

15 If you go too far down, you can say you can
16 overwhelm it and can lose sight of what's really important.

17 MR. JORDAN: Are you familiar with what happened
18 at Nine Mile?

19 MR. ADER: Vaguely. I was on vacation when it
20 happened, and by the time I got back, I had enough piles of
21 paper.

22 MR. JORDAN: I think that maybe I should just tell
23 him what happened, so he gets a feel for what happened, the
24 fact that they lose five UPSs, uninterruptible power
25 supplies, at the same time, which took down all their rod



1 position indications, caused them to have a reactor scram,
2 caused them to get into sections of their EOPs where there
3 was no equipment or instrumentation that would allow them
4 initially to get through it until they got their UPSs back,
5 because there was no what I'll call safety-related equipment
6 or instrumentation that they had that would indicate rod
7 positions, and I guess -- then I look and I see that this
8 was -- as far as reliability of the UPSs, up until this
9 failure, they would probably be considered very reliable.

10 There was recommendations -- there was indications
11 that -- by the vendor manual -- that maintenance should have
12 been done that wasn't done that caused the UPSs to go down.

13 Is there, by this rule, that maintenance
14 recommendation, the failure to do that would have been, by
15 the rule, right now, would be okay as long as they have a
16 reliable system?

17 Is that the way it reads?

18 MR. ADER: It would leave what maintenance they do
19 to them, as long as they meet the reliability.

20 Whether that's an issue, whether some or all of
21 that should have been safety-related, because it was needed,
22 or whether -- I guess I have generally looked at things, if
23 they were that important, they would have most likely been
24 safety-related.

25 Sometimes people get into issues that something



1 was misclassified, and even what was on the books, that's
2 going to happen.

3 MR. CONTE: Well, the issue is not how you
4 classify it. It's how you treat it. If it were kind of all
5 ingrained, then you classify it first, and that determines
6 how you treat it, and that's the problem here.

7 MR. JORDAN: I don't know their classification.

8 I was looking at if the maintenance rule takes
9 into account non-safety-related as well as safety-related,
10 you know. The application of the maintenance rule in this
11 area would be the same.

12 MR. CONTE: Well, the thing I'm getting out of
13 this is that, with respect to the UPSs and some specific
14 recommendations on a particular component, if it doesn't
15 manifest itself in affecting the reliability and the
16 availability, it's going to get missed.

17 Now, how important is it? You know, each licensee
18 has a responsibility for all the equipment. If they want
19 their plant to stay online, they're going to have to make a
20 determination as to how important it is.

21 What I'm hearing today from the rule is that it's
22 still susceptible as to whether these UPSs would be
23 included.

24 MR. ADER: The rule, in principle, my view of it
25 would be -- and I say "in principle," because the



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1 implementation is going to be harder than it would appear on
2 the surface -- that the more important something is -- you
3 have to monitor to provide reasonable assurance that it
4 fulfills its function.

5 The more important it is, the more monitoring
6 you're going to have to do.

7 Some systems, things will fail, and you know
8 they're going to fail, and they can fail, and it still
9 provides the availability or reliability you count on.

10 Other systems, you cannot afford a failure.

11 MR. JORDAN: In the UPSs, in other words, you're
12 saying you can have -- if there is a AC/DC power supply and
13 as long as the output of the UPSs is still viable, the DC
14 supply could be unreliable and continue to be unreliable as
15 far as a monitoring practice.

16 As long as the output of the UPSs is okay, that
17 their maintenance then would be considered okay on that
18 system.

19 Do you understand what I'm saying?

20 The DC power supply keeps going away constantly.

21 As long as the AC is there and the output of the
22 UPSs is there, the reliability of the UPSs is there, then
23 their monitoring of the output of the UPSs, if that's the
24 criteria, says it's okay, and yet, they keep challenging the
25 DC power supply, and we'd say that's an okay monitoring



1 system.

2 MR. ADER: The output of the UPSs is what you're
3 really concerned about.

4 MR. JORDAN: Right.

5 MR. ADER: The DC is only one means of getting you
6 that. You can go to redundant -- the more redundancy you
7 have, the less important any one train becomes.

8 Some components within a train may not be
9 important.

10 Your description of what happened was basically
11 about where I was with what happened.

12 It's hard to say, with any of those rules, the
13 first time, whether it would have -- you know, there's a lot
14 of -- under any rule, whether the rule requires it but did
15 they implement the rule?

16 A lot of the problems have always been
17 implementation of something, not lack of a rule being there.

18 MR. CONTE: Okay.

19 You don't have anything?

20 MR. JORDAN: No.

21 MR. VATTER: No.

22 MR. CONTE: Okay.

23 With that -- you have provided a copy of the
24 maintenance rule and SECY-91-110. If there is nothing else,
25 we're off the record.



1 [Whereupon, at 11:55 a.m., the interview was
2 concluded.]
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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: Charles Ader

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.

Marilynn Estep

Official Reporter
Ann Riley & Associates, Ltd.

