

OFFICIAL TRANSCRIPT OF PROCEEDINGS

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

Title: IIt Entrance Meeting

Docket No.

LOCATION: Scriba, New York

DATE: Friday, August 16, 1991 PAGES: 1 - 36

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1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION
3 INCIDENT INVESTIGATION TEAM
4

5 IIT Entrance Meeting
6

7 August 16, 1991
8

9 Nine Mile Point Nuclear Power Station, Unit Two
10 Scriba, New York
11

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14 The following pages are a transcript of a tape
15 recorded by representatives of the U.S. Nuclear Regulatory
16 Commission.
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1 PRESENT (Transcribed from Meeting Attendance Sheet):

2

3 Jack Rosenthal, Branch Chief (AEOD/ROAB)

4 Michael Jordan, Chief, Operator Licensing Section

5 Richard Conte, Chief, BWR Section, Region I

6 Dennis Allison, Senior Program Manager, AEOD

7 Gene Trager, Reactor Systems Engineer

8 Julio Lara, Reactor Engineer, Region I

9 John Kauffman, Senior Reactor Systems Engineer, AEOD

10 Carl Sisco, Operations Engineer

11 Stan Wilczek, Jr., Vice President, Nuclear Support

12 B. Ralph Sylvia, Executive Vice President, Nuclear

13 Joseph F. Firlit, Vice President, Nuclear Generation

14 Martin J. McCormick, Plant Manager, Unit 2

15 James A. Perry, Vice President, Quality Assurance

16 Richard B. Abbott, Manager, Engineering, NMP-2

17 William J. Vatter, Assistant Manager, Human Performance,

18 INPO

19 Craig Z. Gordon, Senior EP Specialist, Region I

20 Kim Dahlberg, Plant Manager, Unit 1

21 Steve Doty, General Supervisor, Electrical Maintenance

22 John Conway, Manager, Technical Support

23 Jerry Helker, General Supervisor, Operations

24 Tom Tomlinson, Supervisor, Reactor Engineering

25 Al Salemi, Director, Emergency Preparedness



1 PRESENT (Continued):

2

3 Ray Main, Maintenance Support Engineer

4 Jim Spadafore, Independent Safety Engineering Group

5 John T. Pavel, Licensing

6 Nick Spagnoletti, Licensing

7 Joe Beratta, Security

8 Rob Temps, Unit 2, Region I

9 Carl Terry, Vice President, Nuclear Engineering

10 M. J. Colomb, Manager, Operations, Unit 2

11 Darrell Eisenhut, SRAB

12 John Vinguof, MATS

13 Jim Evans, MATS

14 John Parkinson, Niagara Mohawk Power Corporation

15 Guy Wilcow, Niagara Mohawk Power Corporation

16 D. K. Greene, Manager, Licensing

17 A. K. Julka, Supervisor, Electrical Design

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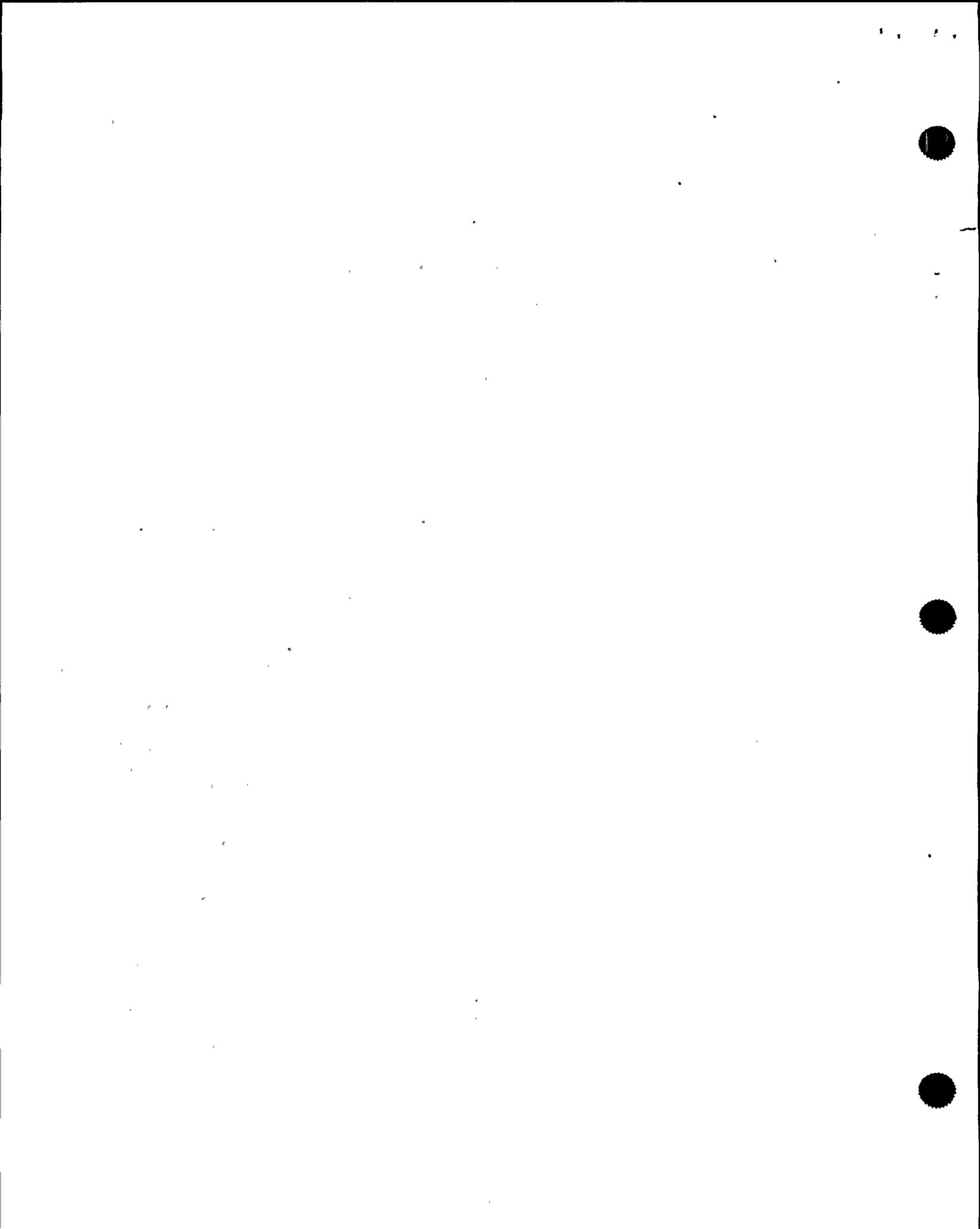
P R O C E E D I N G S

1
2 MR. ROSENTHAL: Well, let me go first. The NRC
3 has -- and you -- decided to form an incident investigation
4 team to examine the event of last Tuesday here. We've
5 informed you of it. I just brought with me today a letter
6 from Jim Taylor, our Executive Director for Operations, to
7 the Commissioners, informing the Commissioners that there
8 would be an IIT and the scope of that investigation, and we
9 can share that as the meeting goes on.

10 Clearly, you are well aware, there was an AIT
11 under way. Headquarters decided with Region I Administrator
12 concurrence that an IIT would be a better tool for the NRC
13 to use to investigate the event and its potential generic
14 implications.

15 It's more than a matter of pedantics that we call
16 this an investigation rather than an inspection. In the
17 course of finding out what happened, which is our goal, we
18 may stumble across issues which would be more of an
19 enforcement nature; we would turn them over to the Region.
20 We can't turn our back on what we know, but that is not our
21 focus. Our focus is really to find out what happened, what
22 corrective actions are needed on a plant-specific basis and
23 what plant-specific actions are needed on a generic basis.

24 The fact of the matter is that, at least within
25 the NRC, the recommendations of an IIT, especially with



1 respect to generic implications, have a visibility far in
2 excess of that of an AIT. So we are using that as a
3 mechanism. We also consider this a safety-significant
4 event, so we want to know why. We've had lots of failures
5 of uninterruptable power supplies over the years, but the
6 issue of common mode failure is, of course, of interest to
7 you and us.

8 What I want to do at the meeting here, then, is to
9 share the scope of the investigation, which relative to
10 prior ones will be narrow in scope, focused on the
11 electrical area, develop some points of contact with you,
12 and discuss the quarantine list which I'm sure is of
13 interest to you. So, that's the meeting agenda that I
14 propose.

15 The IIT is a far more formal process than AITs and
16 is patterned after investigations that are performed by the
17 National Transportation Safety Board. Just as they will
18 have, let's say an airframe manufacturer on their team, we
19 have some assistance from INPO, Mr. Vatter, who's an expert
20 in human performance ops, and we are trying to gain
21 additional help from them in the area of bus loading
22 dynamics, the actual transient response on the bus, where
23 you want somebody with some real specific industry
24 expertise. But we don't have that person yet.

25 Because it's a more formal process, we take

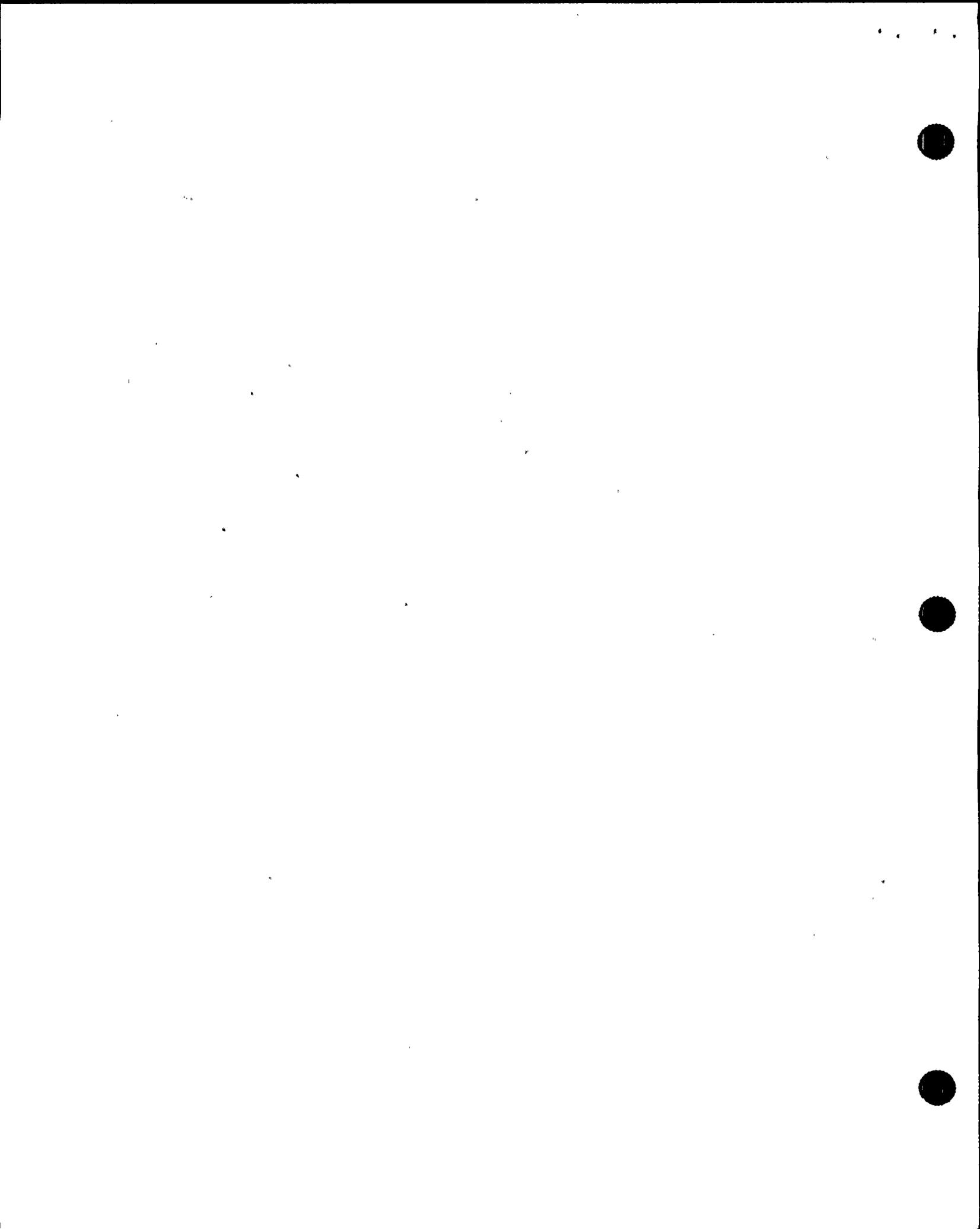


1 transcripts. I was not able to arrange, today, for a
2 stenographer -- we should have a stenographer here by
3 tomorrow morning -- so I had asked Mr. Firlit if we could
4 tape-record it and we would later transcribe it.

5 Not on plant tours or if we're going out, but
6 otherwise interviews will be recorded by a stenographer.
7 They will be transcribed. The person interviewed can come
8 in, read it over, we'll give them an errata sheet, we
9 clearly want to get the facts right, and then we'll hang on
10 to that. And then I expect to complete my work in about 45
11 days. I anticipate being on-site a week to ten days, write
12 a report; the first public release of that report would be
13 to the Commissioners at a meeting with the Commissioners --
14 at a public meeting -- and then whoever wants a copy of
15 their transcripts, et cetera, can have it.

16 Because it's a more formal process, documents that
17 we get we'll clearly number to identify what we're getting
18 and try to keep track of what we're getting. I'll need your
19 cooperation if we get into matters of proprietary or of
20 commercial interest. I will try, but sight unseen I can't
21 say, to keep the report, the public report of a non-
22 proprietary nature, but we just don't know where it's going
23 to go.

24 But once that report is out, of course, you'll get
25 copies of it, and then all the transcripts and the material



1 you would have access to.

2 Okay. You're getting copies of this -- the
3 charter?

4 VOICE: Yes.

5 MR. MCCORMICK: I'll make sure of that.

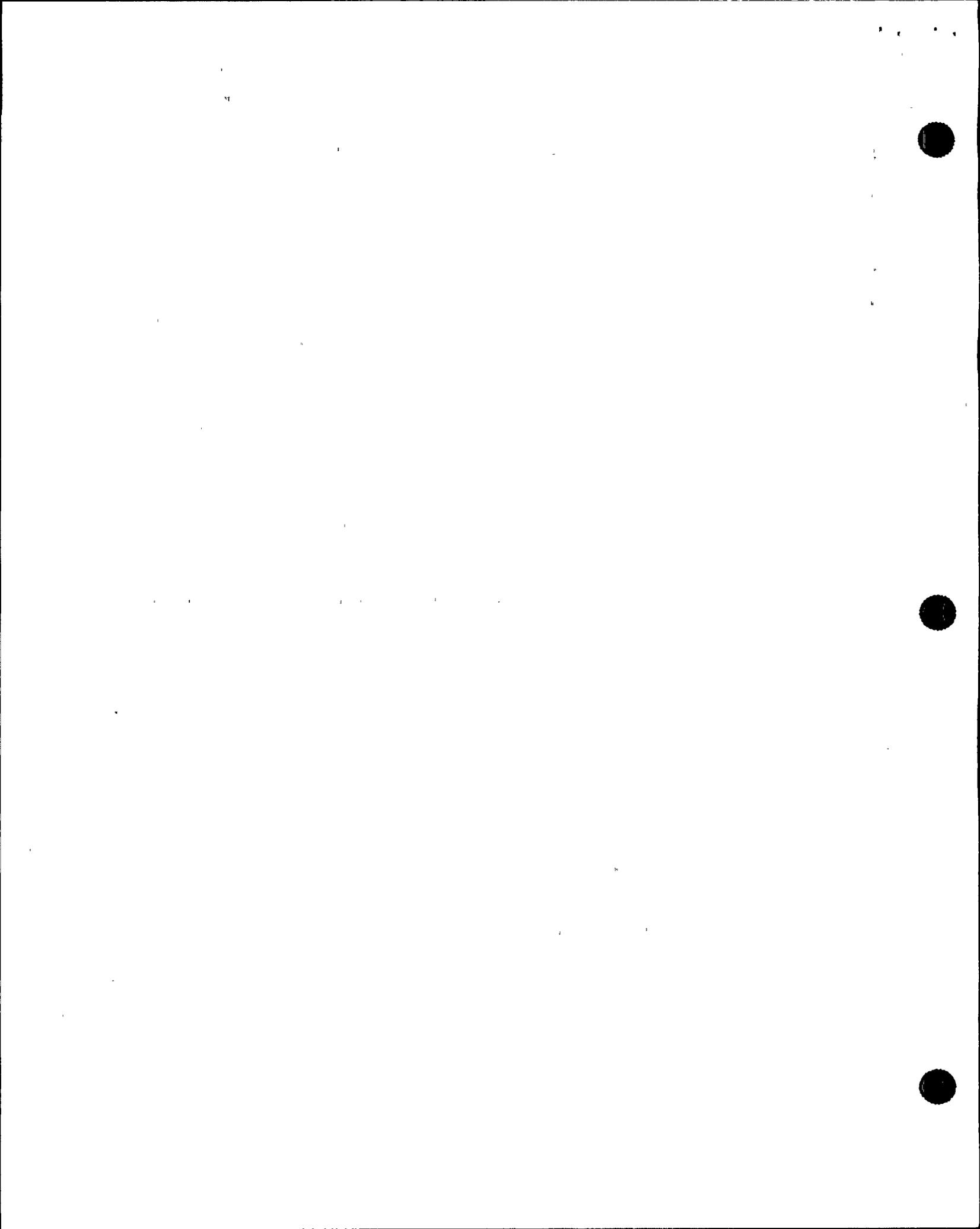
6 MR. ROSENTHAL: Okay. Let me give you the table
7 for a few minutes.

8 MR. SYLVIA: Well, we offer our full support and
9 cooperation. I think we're both out for the same thing. We
10 clearly want to turn over every rock to find out exactly
11 what happened and what we and the industry need to do to
12 shore up our UPS system. So we look forward to working with
13 you, and we look forward to finding what we can do to have a
14 safer, more reliable source of power to the equipment
15 important to safety.

16 MR. FIRLIT: We can assure you, Jack, that you'll
17 have full cooperation by the entire team.

18 MR. ROSENTHAL: Thank you.

19 MR. FIRLIT: And Stan Wilczek, who is our Vice
20 President of Nuclear Support, who is right next to Ralph
21 right there, took the lead for us to make sure that you
22 would have adequate facilities to work out of, parking
23 spots, the mechanics of -- you know, whatever you need. You
24 had indicated that you had wanted two specific rooms where
25 you could sit down privately and interview people and so



1 forth, and that is being done, and Dan will fill you in
2 after this meeting right here. We also have the conference
3 room up there where your whole team may want to periodically
4 conference, and that would be available to you at that time.

5 If there are any other things that you need, my
6 number is 2447 -- it's the extension on this site -- and
7 I'll be there to help you out any way we can. You'll be in
8 the Unit Two security building and Joseph Beratta, who heads
9 up our security -- is Joseph here? He's right there -- is
10 right down the hall from any place that you would work at
11 and you're welcome to step in his office and ask for help,
12 and he will provide it for you. If you need any
13 secretarial, typing and so forth out of our company, Joseph
14 can certainly provide that out of his area there. He may be
15 equipped to do that.

16 If you need any equipment or something like that,
17 you just have to tell us what you need and we'll see what we
18 have here, and we'll work with you.

19 MR. SYLVIA: I talked with Kim Lawton twice
20 yesterday, and I talked with Jim Taylor late in the day and
21 I assured both of them that you would have our full
22 cooperation and if you need information or to talk to other
23 agencies, if you need our support, you have our full
24 cooperation.

25 MR. FIRLIT: We would be interested in the



1 quarantine list --

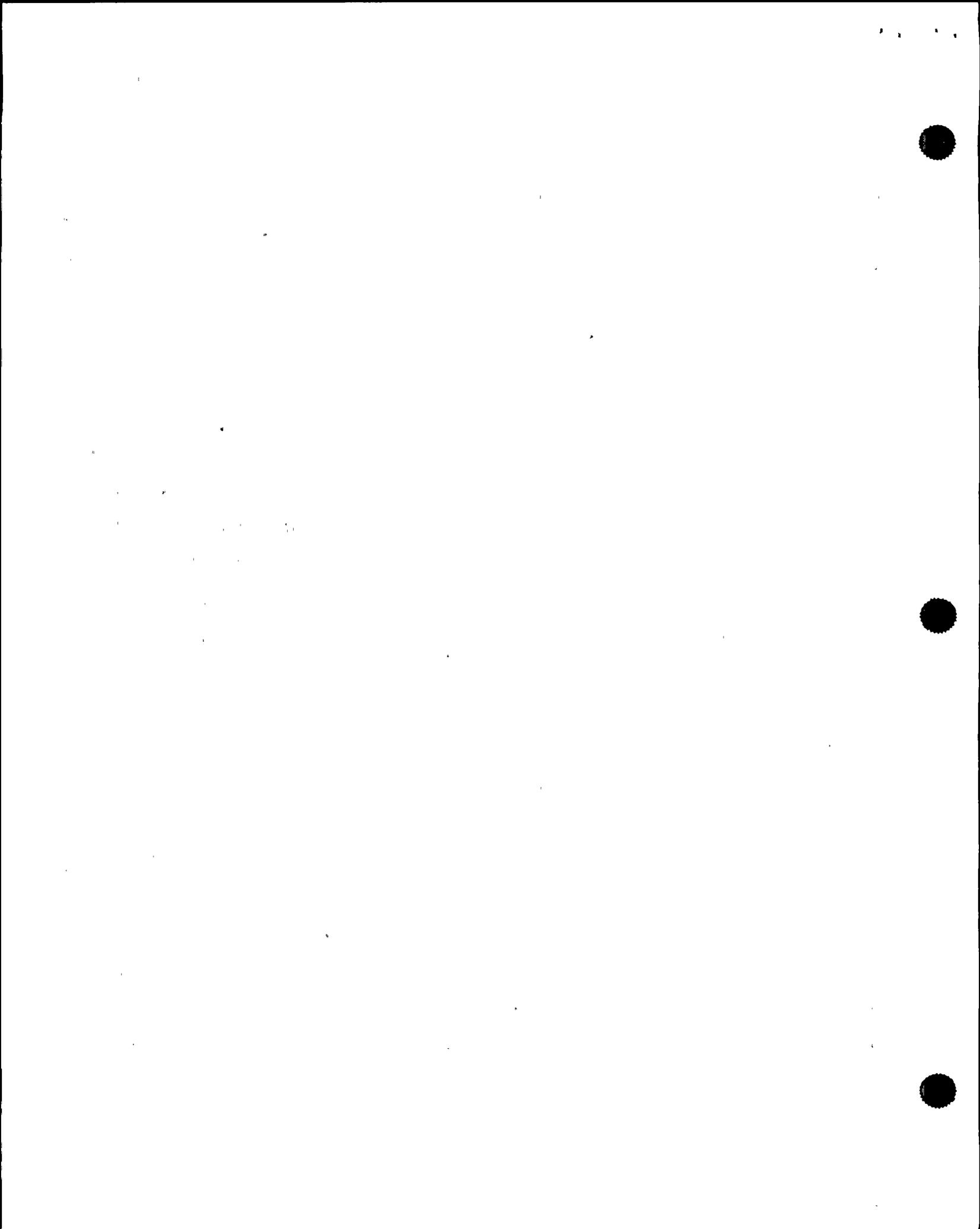
2 VOICE: Right.

3 MR. FIRLIT: -- for several reasons. We do have,
4 on our team, also, a gentleman from INPO that is familiar
5 with the HPES and the performance part of it. We want that
6 in here.

7 VOICE: Right.

8 MR. FIRLIT: We will share with you -- if you
9 don't have copies, I'm sure Rich we can get a copy of
10 it -- our formal assessment team, who's on it, the advisory
11 committee of that and what we're planning on doing on that,
12 so we'll keep you all informed of it. In addition to that,
13 we're bringing in three people, Chung Chiu from Southern Cal
14 Edison that is very familiar with failure analysis, so we
15 have an outside perspective as well as an inside
16 perspective, to take a look at the two key elements that we
17 have: the transformer failure and also these UPS units. And
18 those are the two that we want to pull as well. We're
19 looking at it from a broad scope. Right now it appears that
20 the two things -- the one that initiated and the one that
21 didn't follow up are the transformer and UPS units.

22 MR. SYLVIA: I also talked to INPO. I talked to
23 Zack Pate and Jerry Sullivan; they're going to call me back.
24 The purpose of that call was to see if they had any
25 additional people that maybe could be put on our team so



1 that they can do a better job.

2 MR. ROSENTHAL: I didn't want to share this team
3 charter earlier in the day because I had to give the
4 Commissioners time to see it first because it was addressed
5 to them. Let me just hit one administrative matter and then
6 let's talk about equipment quarantine. I'd like you to post
7 a notice that the IIT team is here, and we'll give you a
8 sample exhibit. If you can put that up on some bulletin
9 boards, that would provide an opportunity for people that
10 may have something to share that neither of us know to ask
11 to come forward. And it's specifically to solicit
12 information that other parties may have about the event.

13 MR. SYLVIA: There's another administrative
14 matter. Will you give us feedback of -- [Inaudible.]

15 VOICE: Our staffs will clearly be interacting. I
16 don't plan a formal exit, but rather it would be the
17 briefing of the Commissioners.

18 MR. SYLVIA: Will we know what your thinking is?

19 MR. ROSENTHAL: Yes, that's our process. In terms
20 of the technical facts, I'm sure that we're going to be
21 sharing technical facts. You're working on an ever more
22 detailed event sequence, I'm sure. I would ask you to share
23 that with us. I would intend to share, for example, the
24 sequence of events that we developed with you before I go
25 out. We all clearly want to get the facts right, but

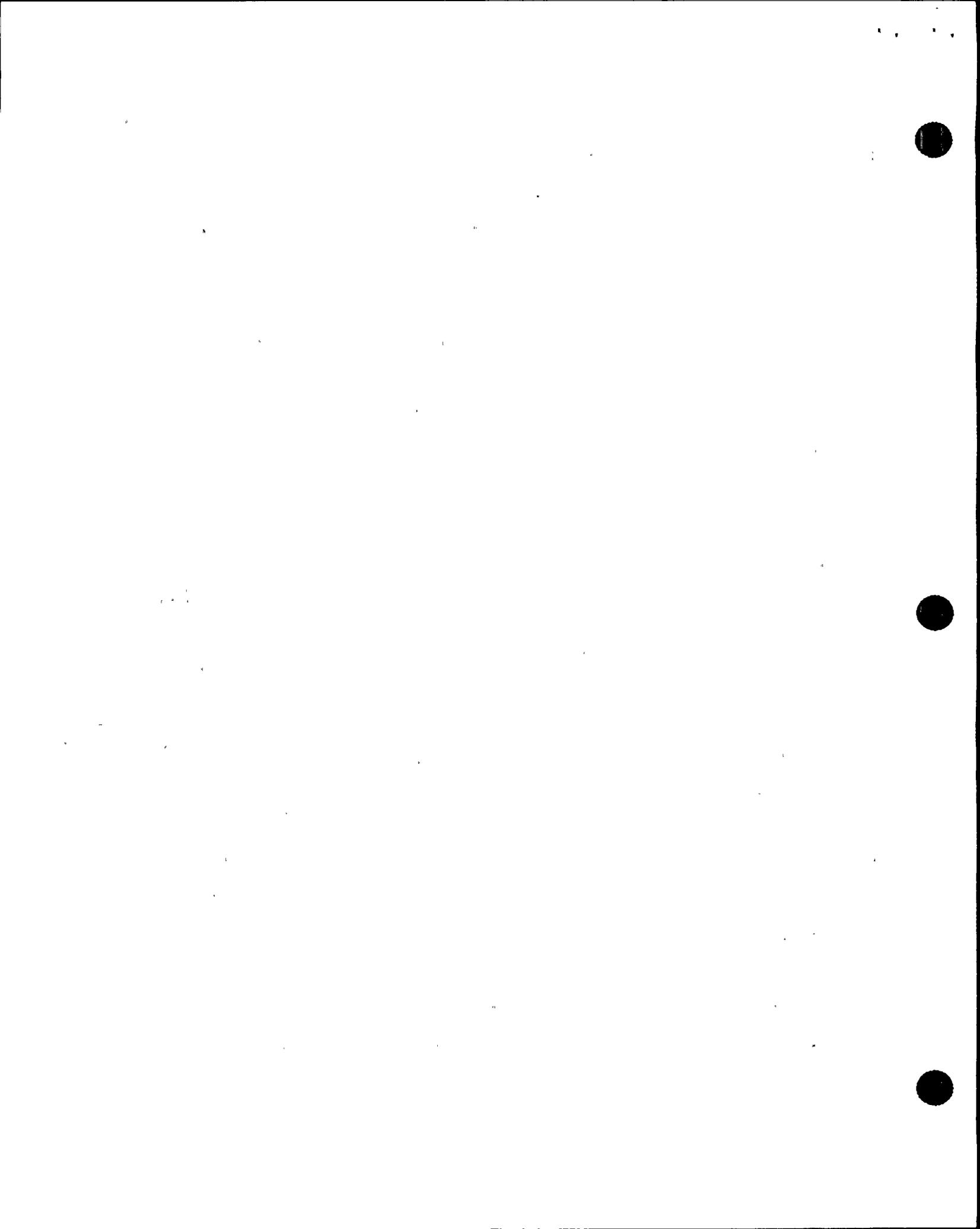


1 especially questions of, let's say, generic applicability, I
2 would not share with you before I shared with my management.

3 Again, on an administrative side, we're under some
4 pressure to have a press conference and I'd like to
5 tentatively do it Monday -- we're working towards Monday
6 about 1:00 where the AIT could say what they had found to
7 date and that there was a formal turnover. Frankly, I would
8 rather meet with them early, before I know too much, than
9 when I'm half way through but not yet completed. And that
10 would be the one and only interaction I would plan to have
11 with the press until such time as we meet with the
12 Commissioners, which would be roughly 45 days from now.

13 Every few days, at least early on, I'm going to
14 generate some sort of preliminary notification, and that's a
15 public document, and that we'll share with you -- to make
16 sure, again, that we get the facts right.

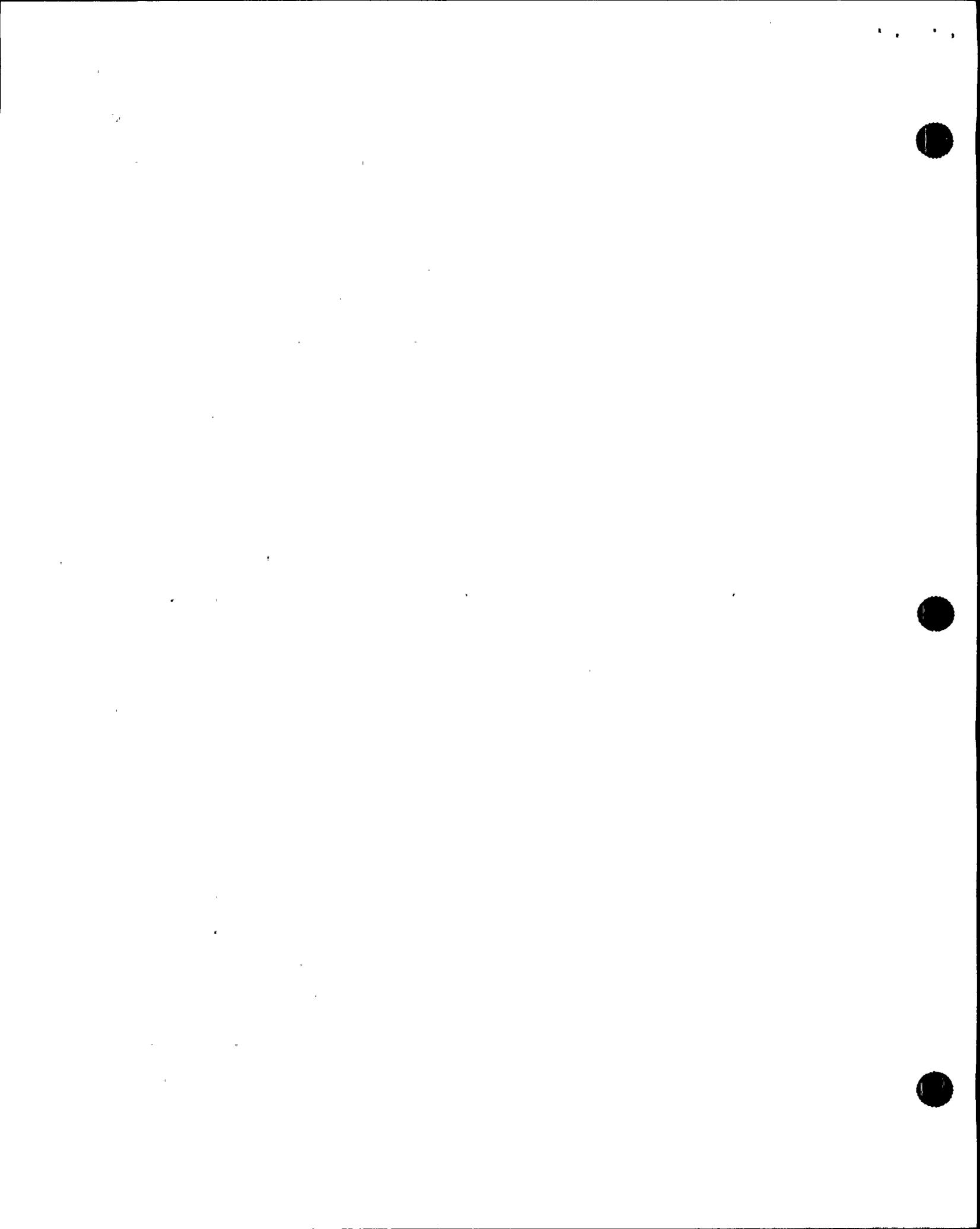
17 Okay. NRC yesterday afternoon had an internal
18 management phone call at which time we realized that it was
19 important to develop a quarantine list and it's an area that
20 I'm just going to have to work with you on a daily basis. I
21 clearly don't want to impede one of your goals, which would
22 be clearly to plan -- you want to throw the net broad enough
23 that you're going to not loose information, narrow enough
24 not to unnecessarily impact. We knew you were working on
25 the -- I believe it's the Charlie UPS?



1 VOICE: Yes.

2 MR. ROSENTHAL: And the issue came up, oh my,
3 let's not work on all of them at the same time because
4 things that you may learn from one may be of interest in
5 troubleshooting the next one and you would lose information
6 that you might want. That promoted a question on the -- at
7 least ensure in a more formal manner that information
8 wouldn't be lost in the course of troubleshooting. And, in
9 fact, I understand that your plans are to sequentially
10 troubleshoot these.

11 The great concern is that we -- in this case, five
12 specific non-safety-related -- to use the terminology --
13 uninterruptable power supplies failed. And I am told that
14 the safety-related ones functioned as designed. One of the
15 big questions is why those; why not these; and what about
16 next time? So we wanted to throw the net broad enough that
17 you wouldn't be, for example, checking over current, under
18 voltage relay -- breaker set points or something that you
19 might do as normal maintenance activity on the 1E side,
20 which doesn't seem to have been involved that would perturb
21 the system before we understood that you were doing it.
22 Clearly you're the people with the knowledge of your
23 equipment, and we're not out there with screwdrivers; we're,
24 rather, observing you. What we want to do, as I said, was
25 throw the net broad and it's time to start talking about



1 narrowing it.

2 MR. FIRLIT: Jack, for the purposes of other
3 people in the room, make sure that we all understand what
4 the word quarantine means. Could you describe your
5 definition of quarantine and what that means to us so that
6 when we walk out of here everybody understands what we can
7 and what we can't do with our equipment, then?

8 MR. ROSENTHAL: We would like you not to work on
9 that equipment, except if you have to work on that equipment
10 in order to preserve the safety of the plant or to prevent
11 further degradation of that equipment.

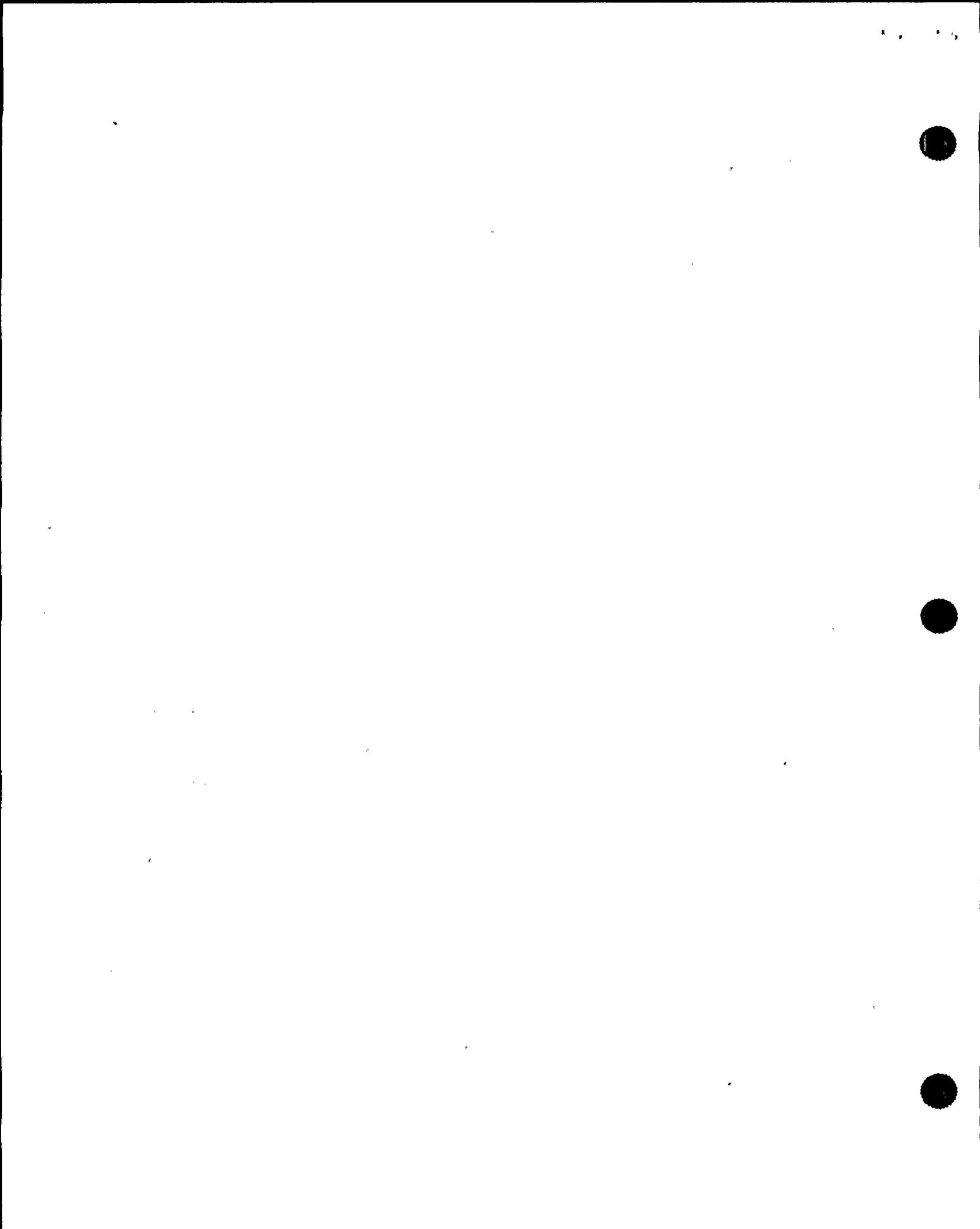
12 MR. McCORMICK: We understand that.

13 VOICE: Jack, excuse me. Or meet tech specs. You
14 understand that.

15 VOICE: Or meet tech specs.

16 MR. McCORMICK: In the communication we had with
17 Rich Conte yesterday evening, it was spelled out in
18 sufficient detail and communicated to the control room. We
19 have, in fact, placed security in the UPS room, with the
20 understanding that no one goes in there except under the
21 conditions for part of the process. And we have also
22 secured what records we have as part of our research to
23 date, and you will be able to meet and see both of those areas,
24 you know, as soon as you're ready.

25 MR. FIRLIT: Pursuing that a little bit further, I



1 just want to make sure that Jack's interpretation of that
2 and our definition are the same. We certainly want to abide
3 by what you're doing here --

4 VOICE: Yes.

5 VOICE: -- and I just don't want somebody
6 innocently and inadvertently going out there and testing a
7 piece of equipment that you may have thought was
8 quarantined. Do we fully understand where that quarantine
9 net is?

10 VOICE: We have a definition.

11 MR. CONTE: You've written them down. I saw it
12 typed in the daily plan this morning. I've given that to
13 Jack. Jack just hasn't had -- with all the logistics --
14 time to sit and digest it. I guess at this point --

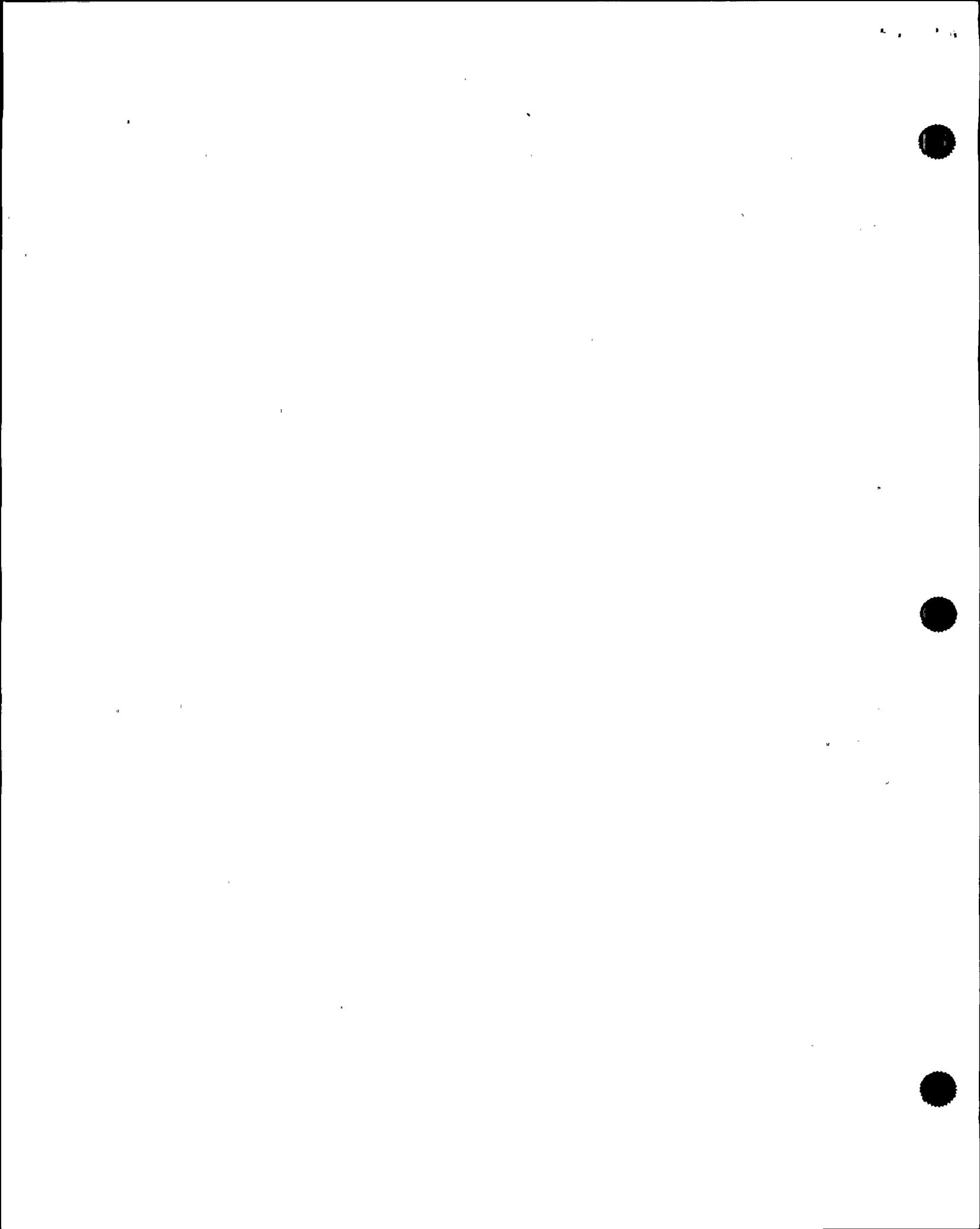
15 MR. FIRLIT: For our purposes, Rich -- [Inaudible]
16 -- at this point. I just want to make sure that people in
17 this room, that work in this plant every day, know what
18 areas we're quarantining.

19 VOICE: Yes.

20 MR. CONTE: It appears to be reasonable. I'd let
21 Jack take a look at it --

22 VOICE: Sure.

23 MR. CONTE: -- independently. If someone in the
24 room is prepared to discuss what you want to do tomorrow or
25 over the weekend on the tech spec surveillance with the MG-



1 set, speak now or -- I think Jack --

2 VOICE: Yes.

3 VOICE: -- understands what you're doing.

4 VOICE: Yes.

5 MR. CONTE: I think he'll give you the release to
6 give it. Do you want to do that now?

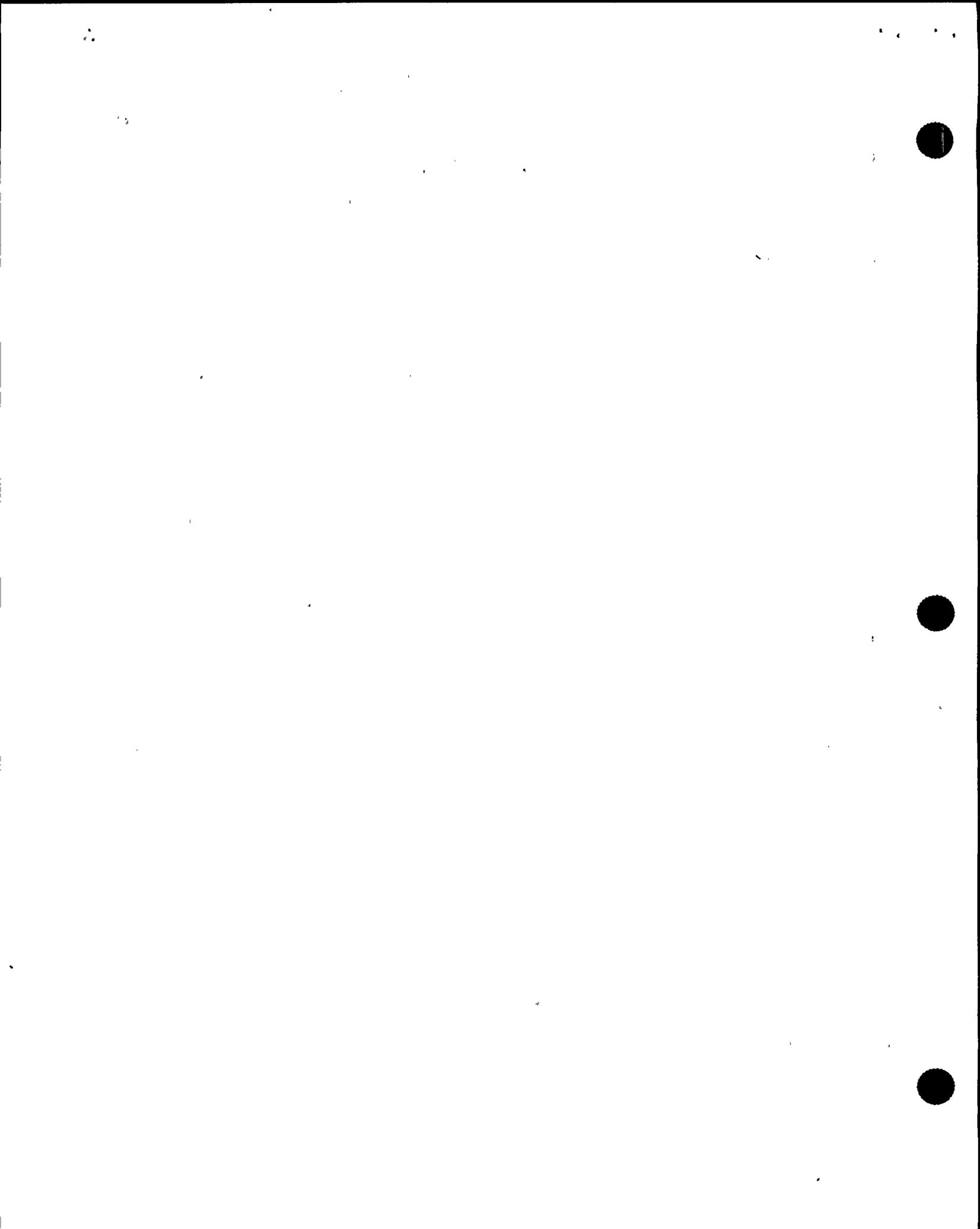
7 MR. ABBOTT: Unless Steve Doty -- [Inaudible.]
8 Steve Doty's our electrical maintenance supervisor, and he
9 knows --

10 MR. ROSENTHAL: Oh, let me say, I mean, it's my
11 intent that we're going to be clearly on a very fast
12 learning curve in the next couple of days and we'll, on a
13 daily basis, subtract from that web -- hopefully not add,
14 but on a daily basis we could review and cut it down. I
15 mean, even in yesterday's discussion there was -- well, what
16 about the B-phase transformer. It was clear that, well, if
17 you didn't touch it, we're just all out there kicking a
18 tire, and that you had to drain the oil out of it and open
19 it up and start looking at what's there and so we said go
20 ahead and do it.

21 The only way that I can think of is to literally
22 work on a daily basis on that list.

23 VOICE: Okay.

24 MR. ROSENTHAL: Now, what's the -- okay, the motor
25 generator sets?



1 MR. McCORMICK: We have a tech spec surveillance.

2 VOICE: It's a six --

3 VOICE: Yes.

4 MR. DOTY: It's a surveillance form that we use to
5 test your outside organization reporting to electrical on
6 site, and they test the under frequency and the voltage and
7 overvoltage characteristics on a -- it used to be a six
8 month requirement, now it's six months or while you're in a
9 cold shut down. We have it scheduled for tomorrow. In
10 conjunction with that we have a corrective maintenance work
11 request to swap a breaker in accordance with the drawings;
12 it has been analyzed to be acceptable, but we want to make
13 it according to the drawings. That was going to go on in
14 conjunction with the surveillance.

15 Do you have more specific questions?

16 MR. ROSENTHAL: How do you know the motor
17 generator sets weren't involved? They're hung off.

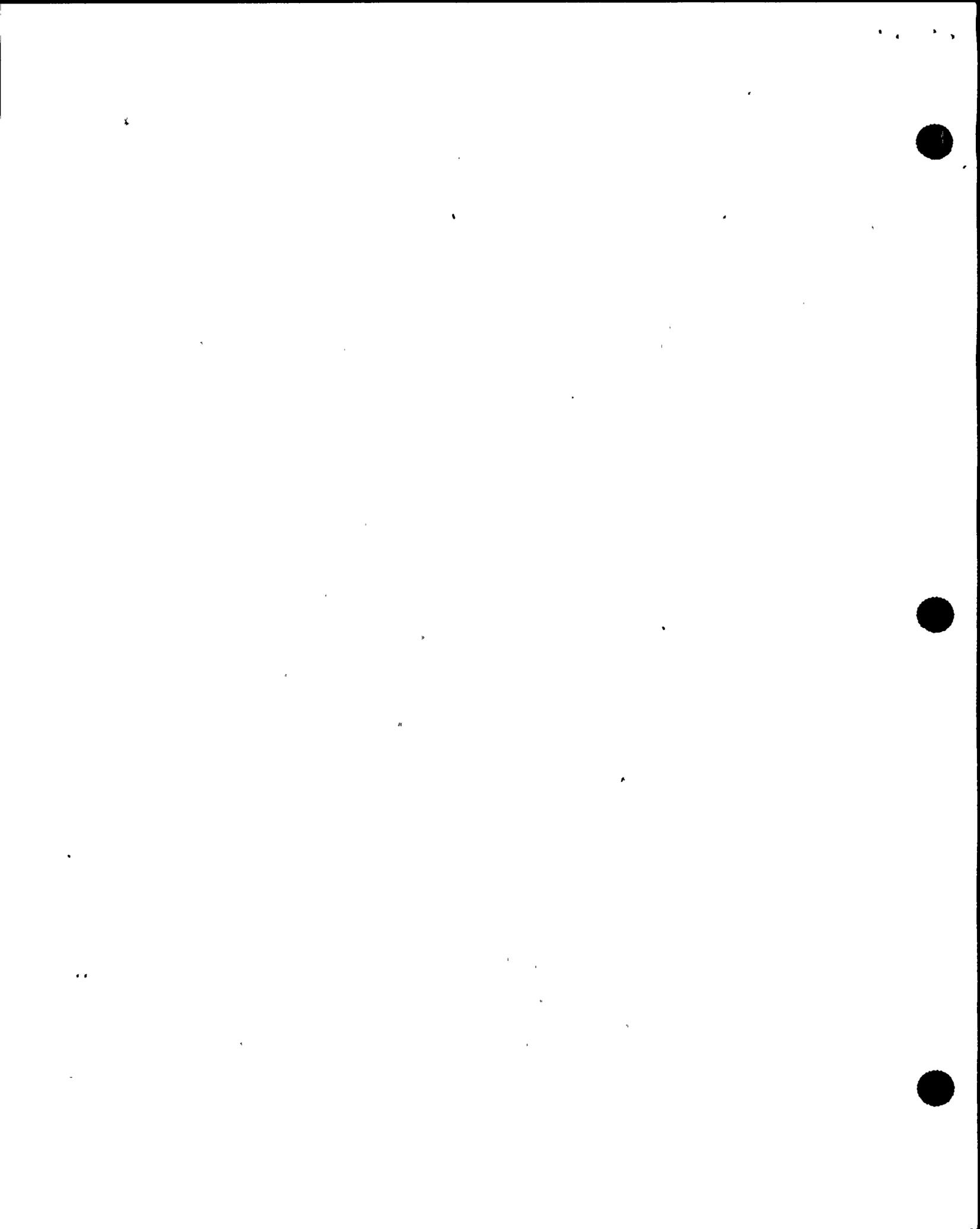
18 MR. DOTY: On the electrical protection
19 assemblies, the EPAs, we know that they didn't trip because
20 to reset those is the manual actuation.

21 MR. ROSENTHAL: Your flags didn't pop?

22 MR. DOTY: Right.

23 MR. ROSENTHAL: And that's documented?

24 I guess last Tuesday you had people going out and
25 looking at stuff and then reporting; that information was



1 coming into the TSC? That's my understanding; is that
2 right?

3 VOICE: Actually it was just one of the control
4 room -- [Inaudible] -- complete monitor of events --
5 [Inaudible.]

6 MR. ABBOTT: Information probably comes directly
7 into the control from operators and is fed to the TSC from
8 the control room.

9 MR. ROSENTHAL: So, I mean, somebody was trying to
10 collect this stuff.

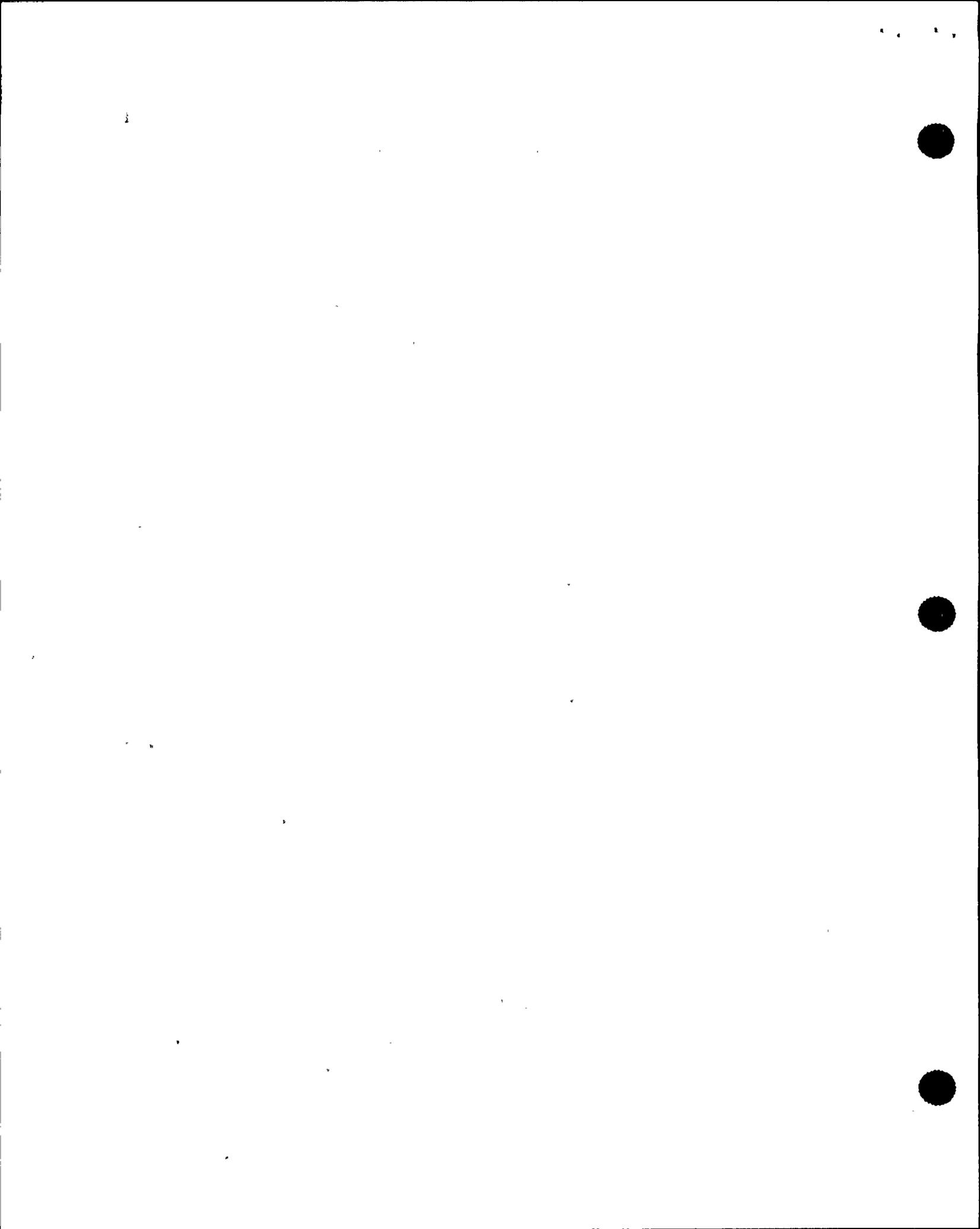
11 MR. McCORMICK: We did go out and document all the
12 relay targets and everything that we had in order to --

13 VOICE: Okay.

14 MR. McCORMICK: Once the plant became stable and
15 we shut it down, we went out and recorded -- we didn't reset
16 anything -- took all the target information and that's all
17 been made available to the recovery team, and certainly it's
18 part of the documents.

19 MR. ROSENTHAL: Can you share that with us?

20 MR. McCORMICK: Sure. I think we have all that
21 material put together and it's part of your investigation.
22 We understood that that would certainly be where we would
23 start. We're hopeful we have been on the same path you want
24 to get on and we have all that data so that anything that
25 operated or that didn't operate that was associated with the



1 transformers, generators, both relaying or with the targets,
2 are all available. So all that data was taken.

3 MR. ROSENTHAL: And we know that there was nothing
4 in the area of the breaker that you want to swap out or the
5 MG-set that wasn't -- [Inaudible] -- your process that
6 wasn't aligned as you would expect -- [Inaudible.]

7 MR. McCORMICK: I'll verify that before we go any
8 further. As far as I know there was no impact on that
9 equipment.

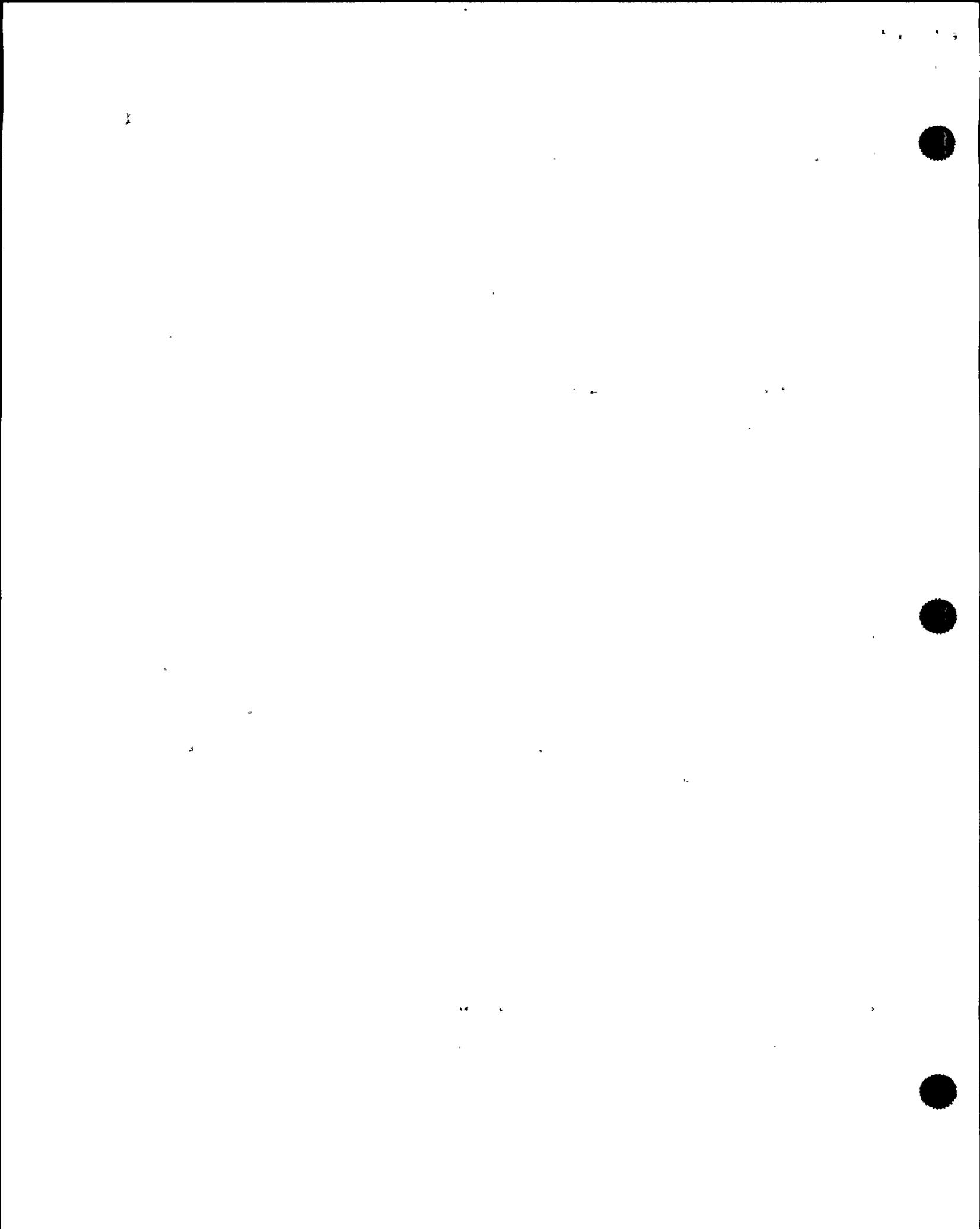
10 MR. ROSENTHAL: Then we'll take it off -- I mean,
11 you know, presumably the flags didn't go off on any of it.
12 In that case we'll take it off and you'll go on with you
13 work.

14 Okay, now, apparently there was also some -- I
15 mean an example was that there were some actuated devices
16 where you wanted to put them in so that you could proceed
17 along, and we said, Yes, go ahead and isolate the breaker
18 and go ahead and do the work on the --

19 MR. CONTE: A component isolation. That's written
20 down --

21 MR. ROSENTHAL: -- a component isolation so you
22 can keep going.

23 MR. McCORMICK: On feeder breakers that would tie
24 into bus work or tie buses. We made that part of the
25 quarantine. But a piece of equipment that would be off that



1 bus if it wasn't involved in our problem that's part of our
2 markup in order to work on the pump --

3 MR. ROSENTHAL: Right.

4 MR. McCORMICK: -- we received a request to go
5 ahead and do that.

6 MR. ROSENTHAL: Right. Right.

7 MR. McCORMICK: That would be marked down the
8 breaker and just pulled out of the compartment.

9 MR. ROSENTHAL: Right.

10 MR. McCORMICK: But nothing that tied to them like
11 a bus.

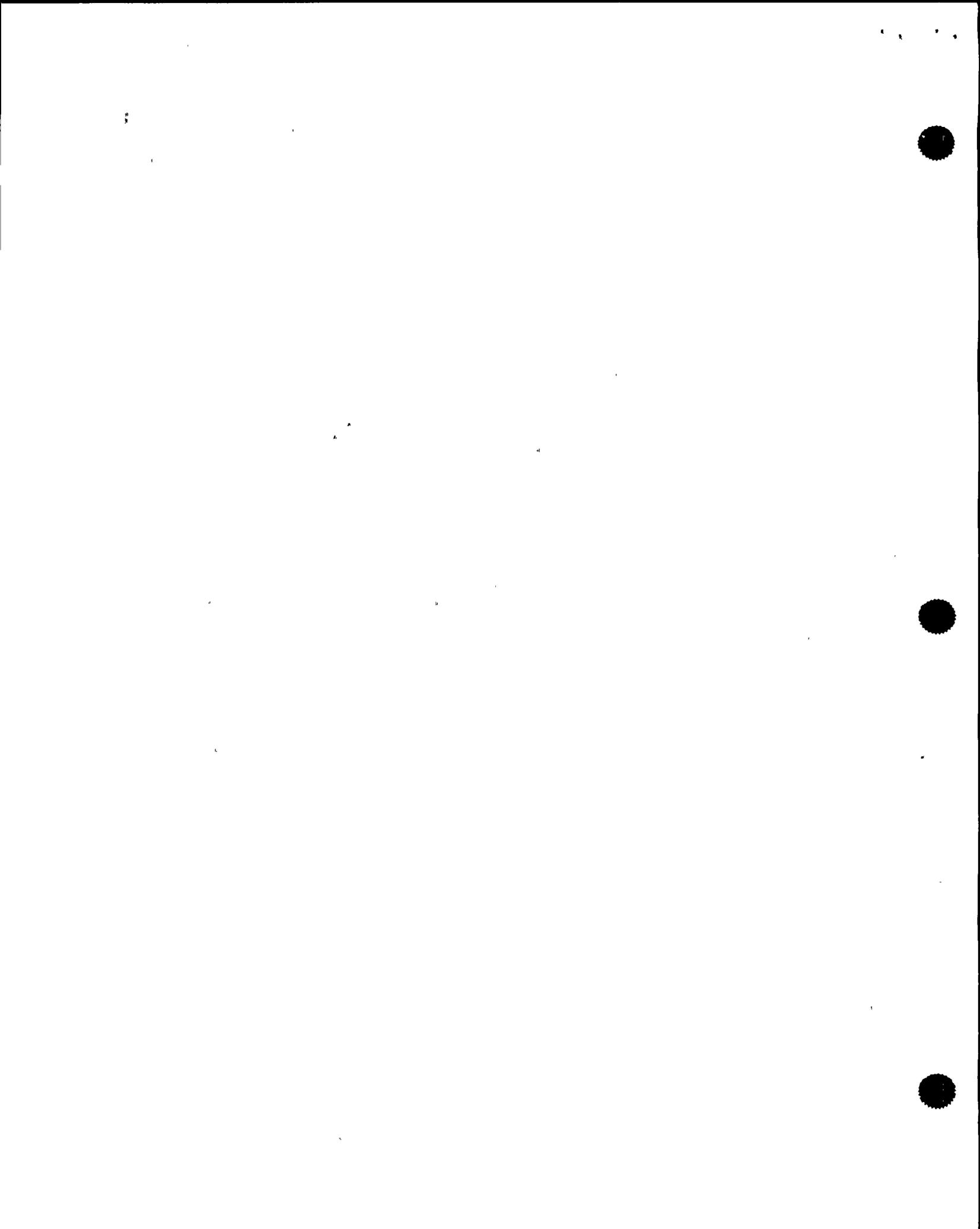
12 VOICE: Right.

13 MR. ROSENTHAL: But that is allowing you to
14 proceed on with your maintenance.

15 MR. McCORMICK: Yes. We're in pretty good shape.
16 I don't have any real serious problems. If I have some we
17 have an agreement that we talk about it and we don't have
18 any real problems at the moment.

19 VOICE: Okay.

20 MR. ABBOTT: There is some breaker maintenance
21 that our station maintenance people want to do with the
22 plant over the weekend that's due next week. We could show
23 that to somebody, probably this afternoon, because we want
24 to get back to these people so that they can plan their
25 work. That's out in Scriba switch yard, which is south of



1 here. We want to describe that to somebody -- [Inaudible.]

2 MR. ROSENTHAL: Are you planning any work on the
3 special surveillances or testing of the 1E UPS's -- you
4 know, as of now?

5 MR. MCCORMICK: Not that I know of. We would
6 certainly understand any uninterruptable power supplies
7 would be a subject of discussion, but --

8 MR. ROSENTHAL: Good.

9 MR. MCCORMICK: -- I'll verify that, but I don't
10 know that.

11 MR. ABBOTT: Not right now from an investigative
12 nature, but there may be routine things we want to do with
13 them, but we're not doing that until we talk about that.
14 There may be some routine tests, but not of an investigative
15 nature yet.

16 MR. ROSENTHAL: You know, this is almost
17 speculative at this point, because, if you start asking
18 questions like what failed, was it a revealing fault, how
19 long did it exist -- I mean, you know, that sort of thing.
20 From troubleshooting the failed ones, now, based on that,
21 that may impact on how one does surveillance testing,
22 maintenance, of the operable ones, you know. We're just
23 speculating.

24 So I think what we have to do is use -- okay, you
25 don't have any problem with the current quarantine list, I



1 take it?

2 MR. McCORMICK: We have no problems with the
3 current quarantine.

4 MR. ROSENTHAL: Okay. And we're agreeing to talk
5 to each other literally daily.

6 MR. McCORMICK: That's correct.

7 MR. ROSENTHAL: And we'll work together on it.

8 MR. McCORMICK: We have a morning meeting -- we
9 went into our outage scenario; we have a number of things we
10 are working on, and at that meeting we should have a pretty
11 good handle, and before that, on anything that's going to
12 take place so we'll flag it. And certainly, Rich, I know,
13 has attended at least the last couple ones and been into
14 those. If we have any questions, that's the time when we
15 bring them to the floor and try and get answers.

16 MR. ROSENTHAL: Now, you had some work on the HPCS
17 which is --

18 VOICE: Right.

19 MR. ROSENTHAL: -- a commitment at the
20 [Inaudible.] I consider that outside the IIT.

21 MR. McCORMICK: Okay. We're moving on that.

22 MR. ABBOTT: Also, we're looking at the HPCS --
23 [Inaudible.]

24 MR. McCORMICK: Division 3 --

25 MR. ABBOTT: It's more than just a pipe



1 inspection. We will go into the bus outage for Division 3.
2 We're working on equipment for Division 3, which is all --
3 [Inaudible.] That was not part of the 14 hours.

4 MR. ROSENTHAL: It is not part of the event, not
5 part of the quarantine.

6 VOICE: Right.

7 MR. CONTE: I still have your beeper. If there
8 are any questions on the quarantine overnight, I'm still at
9 the Captain's Quarters tonight.

10 VOICE: Great.

11 MR. CONTE: Give me a call. I'll probably turn
12 the beeper over to Jack if he wants to assume it, or to the
13 assistant leader here. So, I would recommend, though, if
14 you find yourself getting into a backlog of work requests
15 because of the quarantine list, that may be the signal to
16 get down to a component level.

17 For example, the restriction on lighting may be
18 overly restrictive. We would entertain some discussion
19 tomorrow or Sunday or Monday on what we can do to narrow
20 down lighting into the real components that did not work.

21 MR. McCORMICK: We do have some work requests that
22 we're holding back on those that we had some maintenance
23 work to be done on lighting. So we'll talk about those.

24 MR. ROSENTHAL: Fine.

25 Let me give you just a couple of minutes to read



1 this charter. I'm sorry that I couldn't -- the best thing
2 to do is to hand carry it up, as quickly as we can.

3 [Pause.]

4 MR. ROSENTHAL: Let me just point out that it's --
5 actually we've tried to narrow the scope, than other IIT's.
6 The scope really is oriented towards the electrical area.
7 When we talk about plant response on the third indented
8 paragraph, if my charter is to find out the loss of the five
9 UPS and establishing an understanding of why certain other
10 UPS continue to function, then that, in turn, drives me to
11 be cautious about throwing this quarantine net to include
12 that other equipment.

13 MR. McCORMICK: Right.

14 MR. ROSENTHAL: Which I'm sure you're going to
15 want to get into soon.

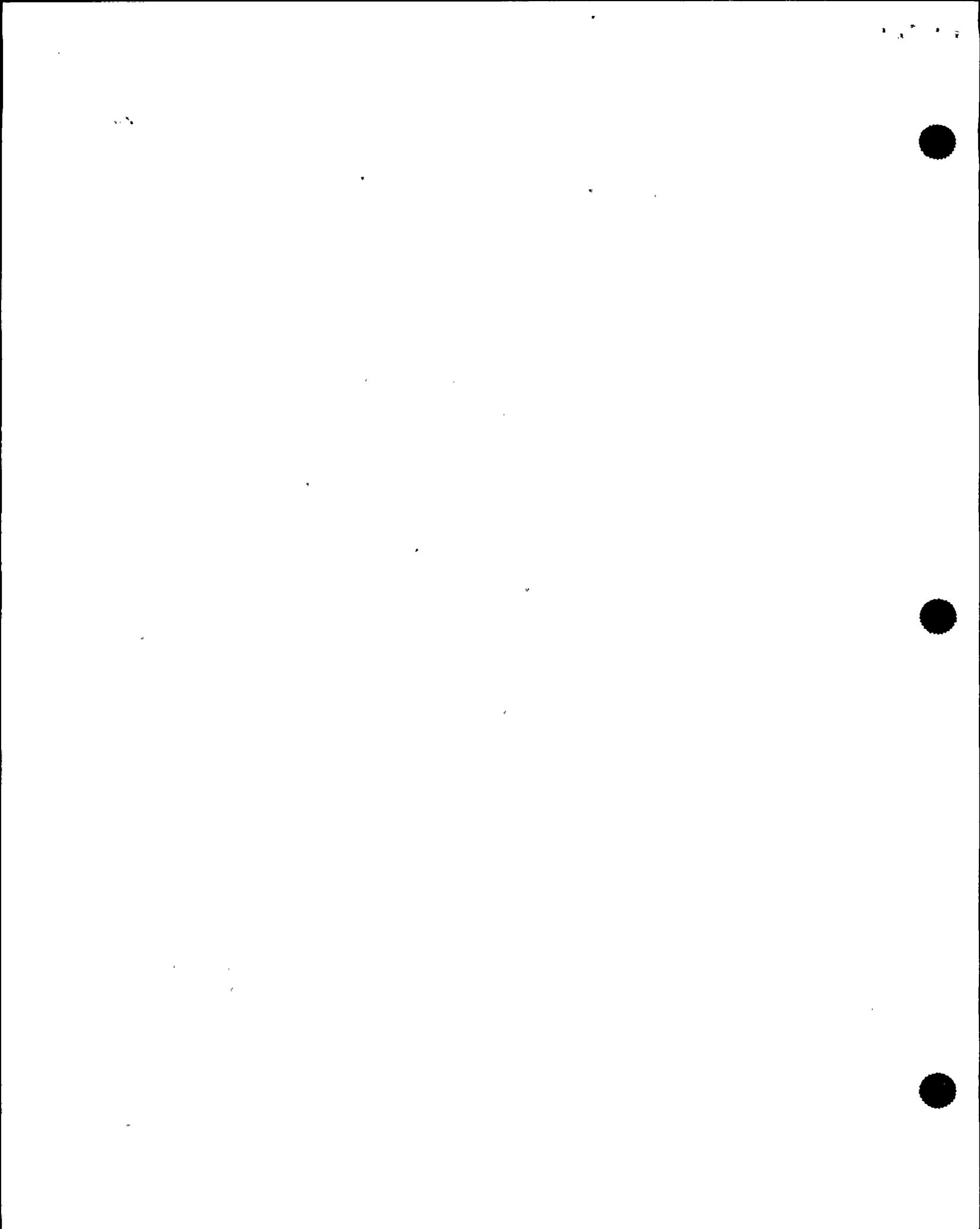
16 MR. McCORMICK: Well, we have the same question.
17 We understand what you're trying to get at. [Inaudible.]

18 MR. ABBOTT: Question: Right now we do not have a
19 quarantine on our safety-related UPS's. [Inaudible.] We do
20 not have a quarantine on the safety-related -- just on the
21 1A, B, C, and -- excuse me -- 1A, B, D, and G.

22 VOICE: Hopefully, people will switch.

23 MR. ABBOTT: We'd all switch power distribution
24 system.

25 MR. CONTE: I thought it was safety-grade AC



1 distribution and DC distribution also.

2 MR. ABBOTT: That's right. Never mind. Pardon
3 me.

4 MR. CONTE: Once again, if you need that -- if
5 that's overly restricting you --

6 VOICE: [Inaudible.]

7 MR. ROSENTHAL: Who would be a good point of
8 contact?

9 VOICE: [Inaudible.]

10 VOICE: Okay.

11 MR. SYLVIA: Marty McCormick is the plant manager,
12 so he ought to be the center point of contact for all
13 activity, because he'll cut across everything. I'll be
14 available with any other questions you may have regarding,
15 you know, any of the other assistance that you may need, and
16 then Rick Abbott is the gentleman that's in charge of the
17 assessment team that we have, so any sharing of information
18 and so forth that Rick has, then you can contact him
19 directly on it. I don't know if he has a phone, but his
20 beeper number is 1144. Do you have a phone yet?

21 VOICE: No.

22 MR. ALLISON: Rick, would you be the appropriate
23 person to ask for certain people for interviews and set up
24 interview schedules and things like that?

25 MR. ABBOTT: We'll start with me, but we have an



1 organization that we're putting together right now -- those
2 certain areas are delegated to certain leads, and they're
3 all here in the room, if you need to meet and know where
4 they are.

5 VOICE: All right.

6 MR. ABBOTT: They're arranging whatever needs to
7 be arranged. For instance, the Operations Superintendent is
8 arranging the operations interviews that you've asked for
9 over the week. You'll be able to meet him right after the
10 meeting. Jerry is here, but you'll be able to coordinate
11 the interviews.

12 VOICE: Okay.

13 MR. CONTE: It has worked pretty good with the IIT
14 that a licensing individual, John Pavel, has -- if there are
15 any administrative needs, any needs, contacts with people,
16 it has worked well for him to get a-hold of the appropriate
17 individuals, and I guess he's dedicated to the team now.

18 MR. PAVEL: Yes.

19 MR. CONTE: You're on the assessment group; is
20 that right, John?

21 MR. PAVEL: Yes.

22 MR. ABBOTT: I have a package that's just a three-
23 pager that describes our team with the names on them and
24 what all people are responsible for, the various sections of
25 hardware, if you want it.



1 MR. CONTE: Jack has that.

2 Unfortunately, we don't have all the IIT members,
3 do we?

4 MR. ROSENTHAL: No. No. Let me -- Let me just
5 give you a little background, and that is that, at least
6 right now, I head the Reactor Operations Analysis Branch in
7 the office for Analysis and Evaluation of Operational Data.
8 We are the people that brought you the industry generic
9 interest in MOV's and parts they make from the Davis-Besse
10 IIT, but now that's a major industry exercise. We did a
11 case study on instrument air. For better or worse, we did a
12 case study on inverters in 1986. I wasn't even involved
13 then in that organization. We're going to go back and find
14 out what we wrote up about that experience then. People
15 have known about inverter failures. We did decay heat
16 removal, air systems, service water -- you probably received
17 a sort of generic letter on service water; that came from a
18 study that my branch had done, typically, a year and a half
19 or two years before.

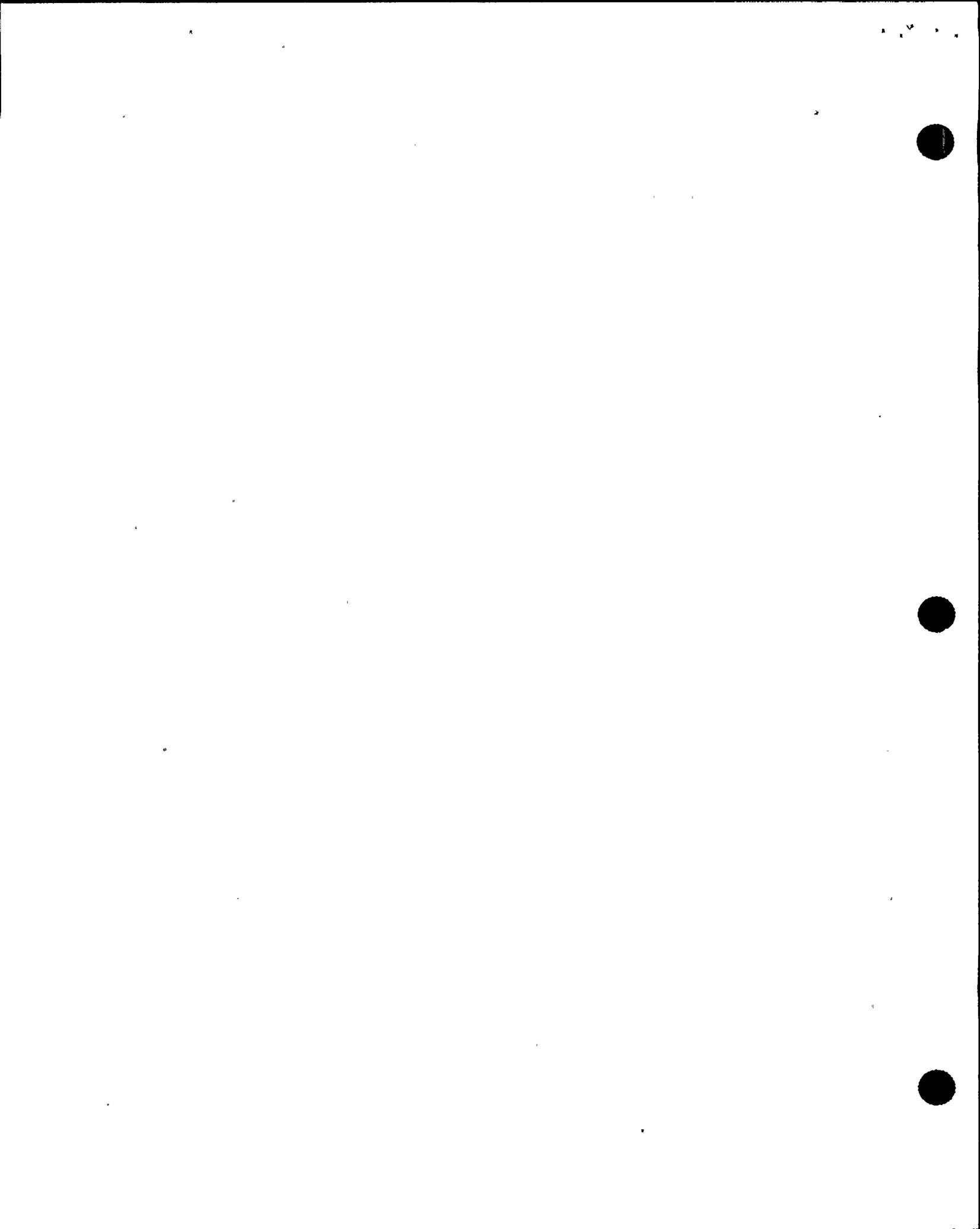
20 And so you can see that just by Jim Taylor
21 choosing me, he's thinking generic implications.

22 MR. SYLVIA: [Inaudible] -- made very clear.

23 MR. ROSENTHAL: Okay.

24 VOICE: [Inaudible.]

25 MR. ROSENTHAL: Jose Ibarra is an electrical



1 specialist, Michael Jordan, ops, John Kauffman, systems and
2 ops; Frank Ashe, who is not here yet -- he should be
3 arriving tonight -- is the man who wrote the inverter study
4 in '86 and is an electrical engineer. Walt Jensen is
5 thermal hydraulics, systems. Rich Conte is, again, human
6 performance. Mr. Vatter is human performance or ops and, as
7 I said earlier, INPO may be adding somebody -- what I had
8 specifically asked was, I wanted somebody who could do
9 dynamic bus analysis, not just simple loadings. And they
10 may or may not be able to come up with that expertise.

11 MR. SYLVIA: [Inaudible] -- a fellow from Duke
12 Power.

13 MR. ROSENTHAL: From Duke, that's right.

14 Okay. Almost everybody here -- we have a mix of
15 people who have worked for AEs, worked for vendors and
16 nobody on this list is a homegrown NRC -- everybody has sat
17 on both sides of the table. And I have at least one SRO
18 also. So I think it's a good group.

19 MR. ABBOTT: May I introduce my team?

20 MR. ROSENTHAL: Please.

21 MR. ABBOTT: I think it would be helpful here.
22 Starting on the far right, Jerry Helker, who is the
23 Superintendent of Operations, and he's responsible for the
24 operations and control room part of this assessment. Next
25 to him is Tom Tomlinson; he's our Supervisor of Reactor



1 Engineering for the plant. He's in charge of the plant
2 response aspects, transient analysis, and any [Inaudible]
3 line equipment problems that were incurred during the
4 shutdown process.

5 Then there's John Conway; he's our Manager of
6 Technical Support for Unit Two. He's assigned overall
7 responsibility for the UPS investigation. Next to him is
8 Steve Doty; he's our Electrical Maintenance Supervisor, and
9 he has the main transformer evaluation and corrective
10 actions.

11 Next to him is Anil Julka, Anil is our Supervisor
12 of Electrical Design and Engineering, and Anil has
13 electrical distribution evaluation and root cause, et cetera
14 [Inaudible]. And finally behind that group is Jim Spadafore
15 -- not finally, but Jim Spadafore is our Supervisor of ISEG,
16 Independent Safety Engineering Group, he has been in charge
17 of putting together the overall safety assessment, with
18 support, obviously, from Engineering and Licensing to
19 provide the overall final report, if you will, and the
20 safety certificates and overall assessment.

21 There is also Al Salemi. Al Salemi was charged
22 with evaluating and assessing the emergency plan aspects of
23 the event.

24 MR. FIRLIT: Jack, one clarification I need to
25 have: If we satisfy ourselves that we understand what the



1 root cause is and, you know, whether it's design change or
2 equipment failure or whatever it is, and satisfy the region
3 as well, the implication of your 45 day report -- does your
4 report have to come out before we can consider restarting
5 this plant again before the Commissioners?

6 MR. ROSENTHAL: No.

7 MR. FIRLIT: Okay, I just wanted to clarify that.

8 MR. ROSENTHAL: No. The restart decision will be
9 with Region I.

10 MR. FIRLIT: Okay.

11 MR. ROSENTHAL: I'm sure that they'll ask for
12 input from me.

13 VOICE: Oh, yes.

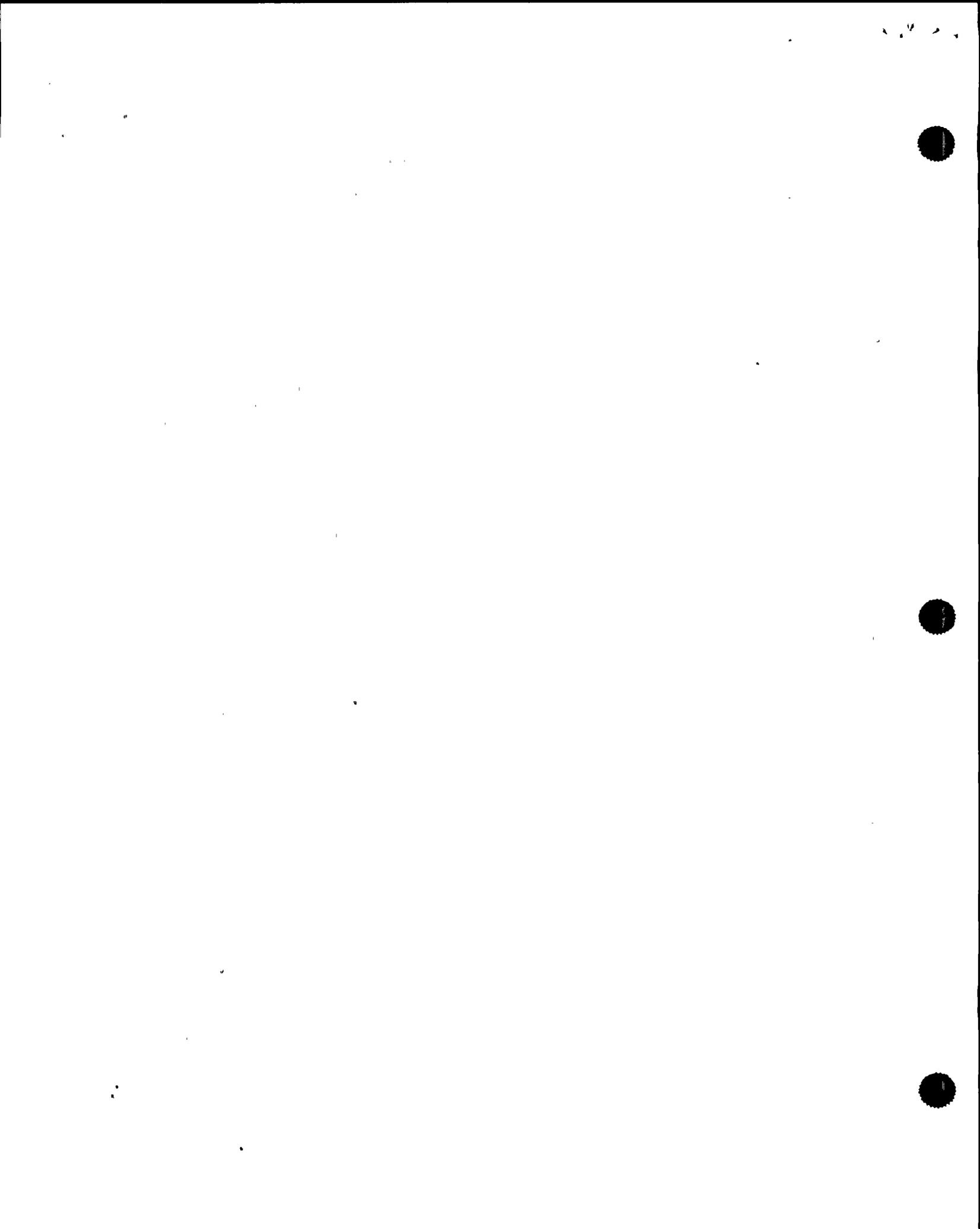
14 MR. ROSENTHAL: But, you know, my report is on a
15 45-day clock. Your actions are on a different clock.

16 MR. FIRLIT: And ours may be shorter or longer
17 depending on what it is?

18 MR. ROSENTHAL: That's right. That's right.

19 For example, I don't know if you know the
20 condition of your turbine. I don't know if you had
21 problems. I don't know what kind of maintenance problems
22 you're going to get into and that's why we're going to have
23 to talk about this quarantine daily. I'm sure you want to
24 come to the --

25 MR. McCORMICK: We're megging the generator, for



1 example because of the bus -- the transformer failed, so
2 we're going ahead and doing that kind of work, the turbine
3 and so forth and the other things. We're essentially moving
4 into what was a 14-day outage and are proceeding to work
5 within that window.

6 There's a little confusion to me as to how much
7 latitude we have, given the tech staff that we have and the
8 consultants that we're bringing in, to understand and find a
9 fix to the problem. We have to satisfy ourselves --

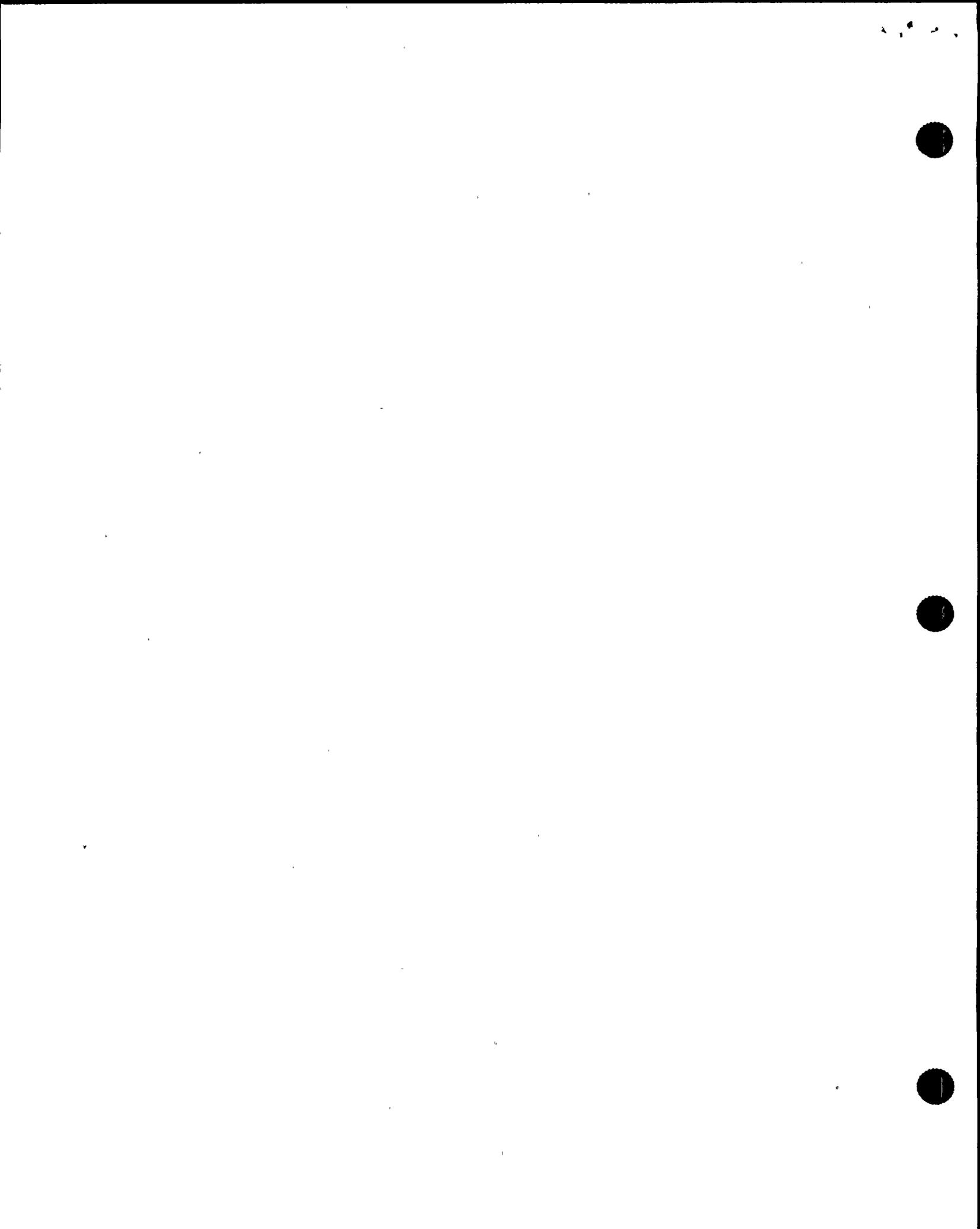
10 MR. ROSENTHAL: That's right.

11 MR. McCORMICK: So, I mean, we're clearly in a
12 mode to say, what happened here, and can we say that we're
13 ready to start? We have to think the fix too. I mean, we
14 have to go ahead and so what we need is to get your buy in
15 and let's go together and find out what it's all about and
16 try and fix it. I guess that's the thing that will help us
17 all once we get that working relationship going.

18 MR. ROSENTHAL: Right. I think that we recognize
19 that you plan to ship that transformer off site.

20 MR. McCORMICK: It will be moved, certainly
21 initially, out of the compartment it's in, and it's open now
22 if you want to take a look at it.

23 MR. ROSENTHAL: Yeah. We did do one walk-by, for
24 people to crawl up there and take a look in. I know that
25 you're not going to have -- not that I know. I suspect that



1 you're not going to have a good root cause on that for some
2 period of time. That doesn't bother me, but the UPS are a
3 different story.

4 MR. McCORMICK: Before this dynamic analysis, you
5 know, we would probably have to go and say given that fault
6 that something happened through our underlying system that
7 set these devices as they are presently designed into lock-
8 out.

9 MR. ROSENTHAL: I don't want to belabor the
10 meeting, but if you're willing to chat, do you have the
11 capability to do the dynamic load analysis in-house or would
12 you be contracting that out?

13 MR. McCORMICK: What we're doing is bringing in
14 expertise to help us and say what would we do to find out
15 what went on, including the vendor and also through our
16 engineering department.

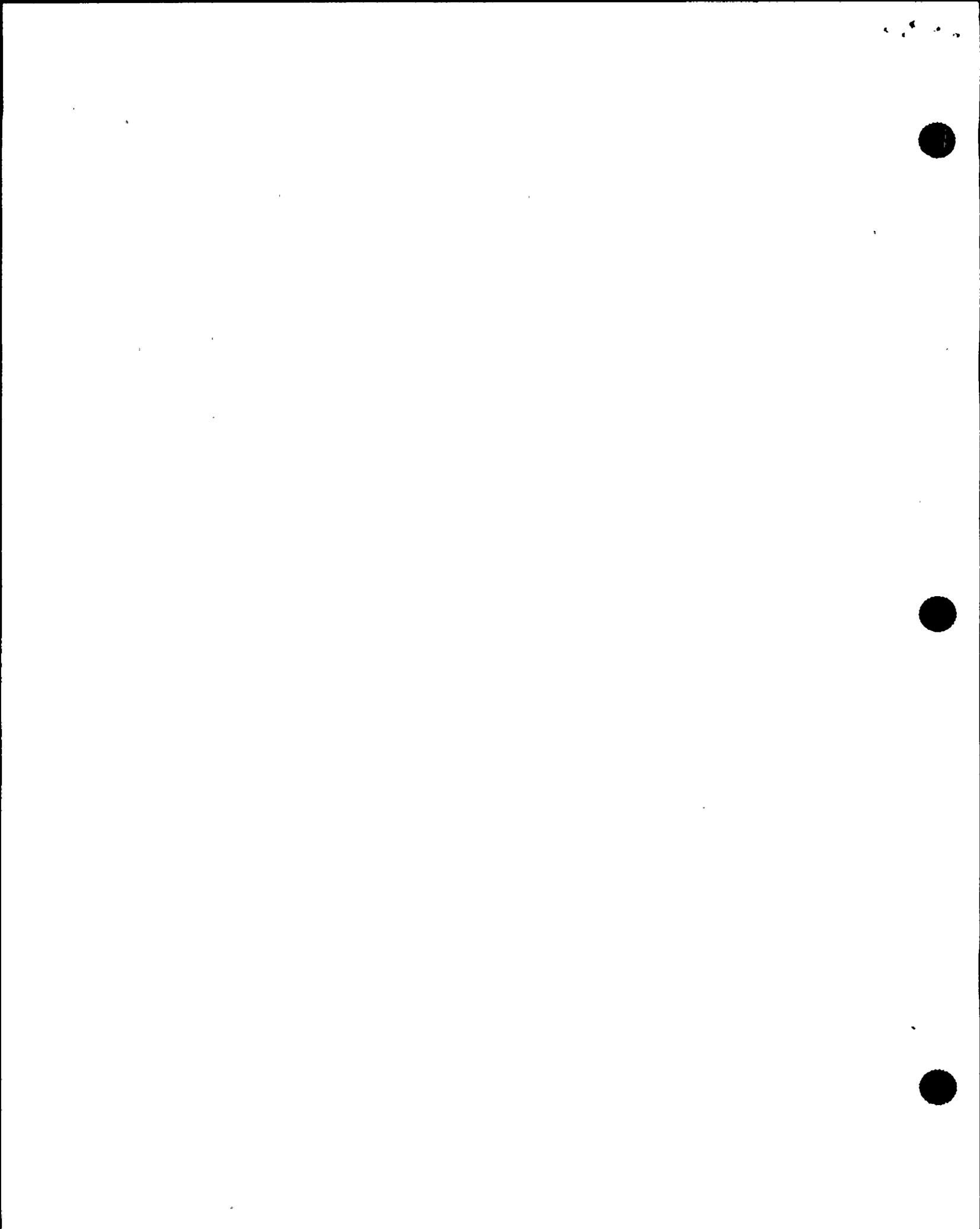
17 MR. ABBOTT: We're evaluating the need for dynamic
18 load analysis in that we've got some sort of investigation
19 right now with the UPS itself, so we need to share that
20 information with you.

21 MR. ROSENTHAL: Yes.

22 MR. ABBOTT: I think as soon as we can.

23 We don't have the in-house capability to dynamic
24 load testing analysis, no.

25 MR. ROSENTHAL: Denny, are there more



1 administrative things that I have missed?

2 MR. ALLISON: I think we have covered them. Yes.

3 MR. ROSENTHAL: Why don't we give Niagara Mohawk
4 the last word?

5 MR. McCORMICK: Before we finish with
6 administrative, arrangements that I'm working toward for
7 this weekend are to recover some of the folks who were
8 involved in the control room crew and those first responders
9 to the event of the loss of power to the UPS, so that we can
10 begin an interview process.

11 MR. ROSENTHAL: Right.

12 MR. McCORMICK: We're targeting -- and we haven't
13 completed it yet -- four people for Saturday, four people
14 for Sunday.

15 MR. ROSENTHAL: Okay.

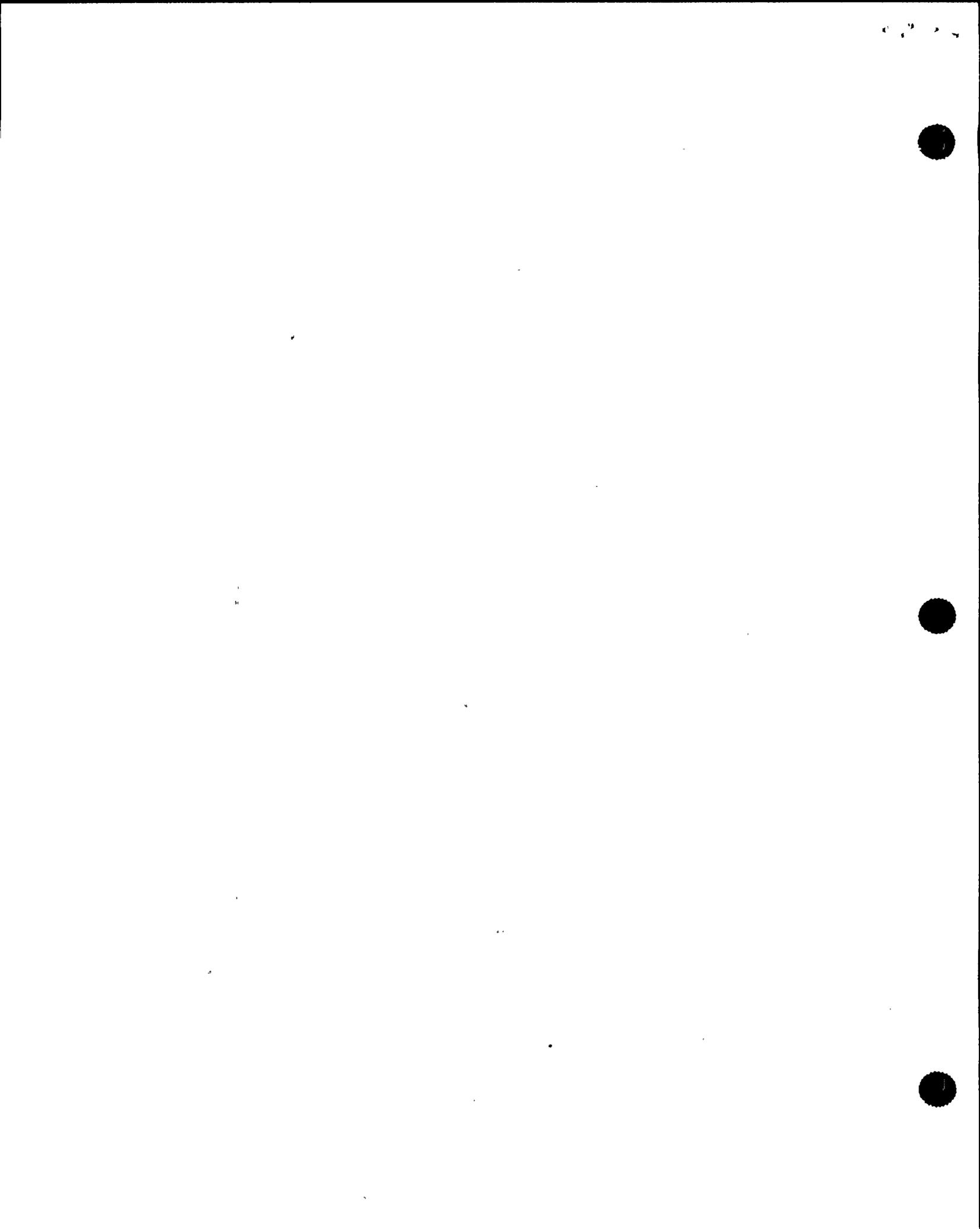
16 MR. McCORMICK: We have probably -- and because
17 these fellows were off, they didn't know about this, it came
18 after they were gone --

19 MR. ROSENTHAL: Sure.

20 MR. McCORMICK: I've had three that I am certain
21 of at the moment. And we'll make that known, that record --
22 that interview schedule available before the day is out.

23 MR. ALLISON: Okay. I would like to get together
24 and give you some papers after the meeting.

25 VOICE: Okay.



1 MR. ALLISON: I have a little handout that you
2 might want to give to your people about how they can review
3 the transcripts and make corrections and a sample of the
4 notice to put up on the bulletin board and things like that.

5 MR. McCORMICK: Jerry Helker, I think, will be
6 coordinating that, and I also understand from Rich that our
7 present plan is at 5:00 or thereabouts we'll have a more
8 detailed walkdown, and we have two people available to do
9 that, beginning in the control room.

10 MR. ROSENTHAL: Good. Just a few hours, and then
11 what I would like to do tomorrow morning is, I think I would
12 like to spend some time in the simulator because I can walk
13 up to things without --

14 VOICE: Sure.

15 MR. ROSENTHAL: -- you know, okay. And then back
16 into the control room starting at, let's say, eight, and
17 then the first interviews at 10. There's a great rush to do
18 the interviews, because with each passing day the memory
19 changes and yet the interviews just won't be profitable
20 unless we have some understanding of the hardware, and
21 looking at P&ID's and schematics, which I've done, is just
22 not the same.

23 MR. McCORMICK: So, you want to be in the
24 simulator at seven?

25 MR. ROSENTHAL: Eight?



1 MR. McCORMICK: Oh, at eight? Okay.

2 And the simulator control room, right? And then
3 begin interviews at 10. Okay. We'll take care of that. Is
4 that the whole team or just --

5 MR. ROSENTHAL: Well, what I would like to do
6 is -- yes, the whole team will be in the -- you see, we're
7 transitioning, and only Rick Conte will stay on the team.
8 This is part of this idea of an independent review, and
9 that's balanced by the fact that I need some continuity.

10 VOICE: Sure.

11 MR. ROSENTHAL: Okay.

12 MR. McCORMICK: We're glad to have Richard. He's
13 been -- he understands, and I think it will be a help to us
14 both to get us through this transition so we can get off on
15 the right foot.

16 MR. ROSENTHAL: Then I would -- yes, the whole
17 team will be in on the control room and the simulator.
18 Later on we'll break up into little pieces. In terms of the
19 interviews, I would like to have -- let's see -- two on one,
20 no more than two people from the team -- maybe three, but
21 probably two from the team talking to any one individual.
22 It just doesn't work well to have somebody sitting there
23 with 12 other people. And I think, by our procedure, if
24 they want to have somebody there, they can.

25 VOICE: Are these people all ops people or are



1 they also like your in-plant -- the four people on Saturday
2 and four people on Sunday?

3 MR. McCORMICK: They're all operators, but some
4 are in-plant operators as opposed to control --

5 VOICE: They're not all licensed people?

6 MR. McCORMICK: No, there were some licensed that
7 went down in that --

8 VOICE: Okay.

9 MR. McCORMICK: There will be non-licensed and
10 licensed. Now, I don't know what the schedule is for
11 tomorrow, who we were able to contact --

12 VOICE: I was just curious, how big your crews
13 were, whether there were eight people in the control room at
14 one time or if that was including your plant.

15 VOICE: [Inaudible.]

16 VOICE: [Inaudible.]

17 MR. ROSENTHAL: We'll see where it goes from
18 there.

19 MR. McCORMICK: Okay.

20 MR. CONWAY: Are we going to establish contacts
21 with our counterparts today? Is there a plan for tomorrow
22 or --

23 MR. ABBOTT: As we were organized, is there some
24 counterpart type arrangement that you will have?

25 MR. ROSENTHAL: Yes.



1 VOICE: [Inaudible.]

2 MR. ROSENTHAL: I'm sure that we are going to
3 parallel you, but --

4 Why don't we do that right after this meeting?

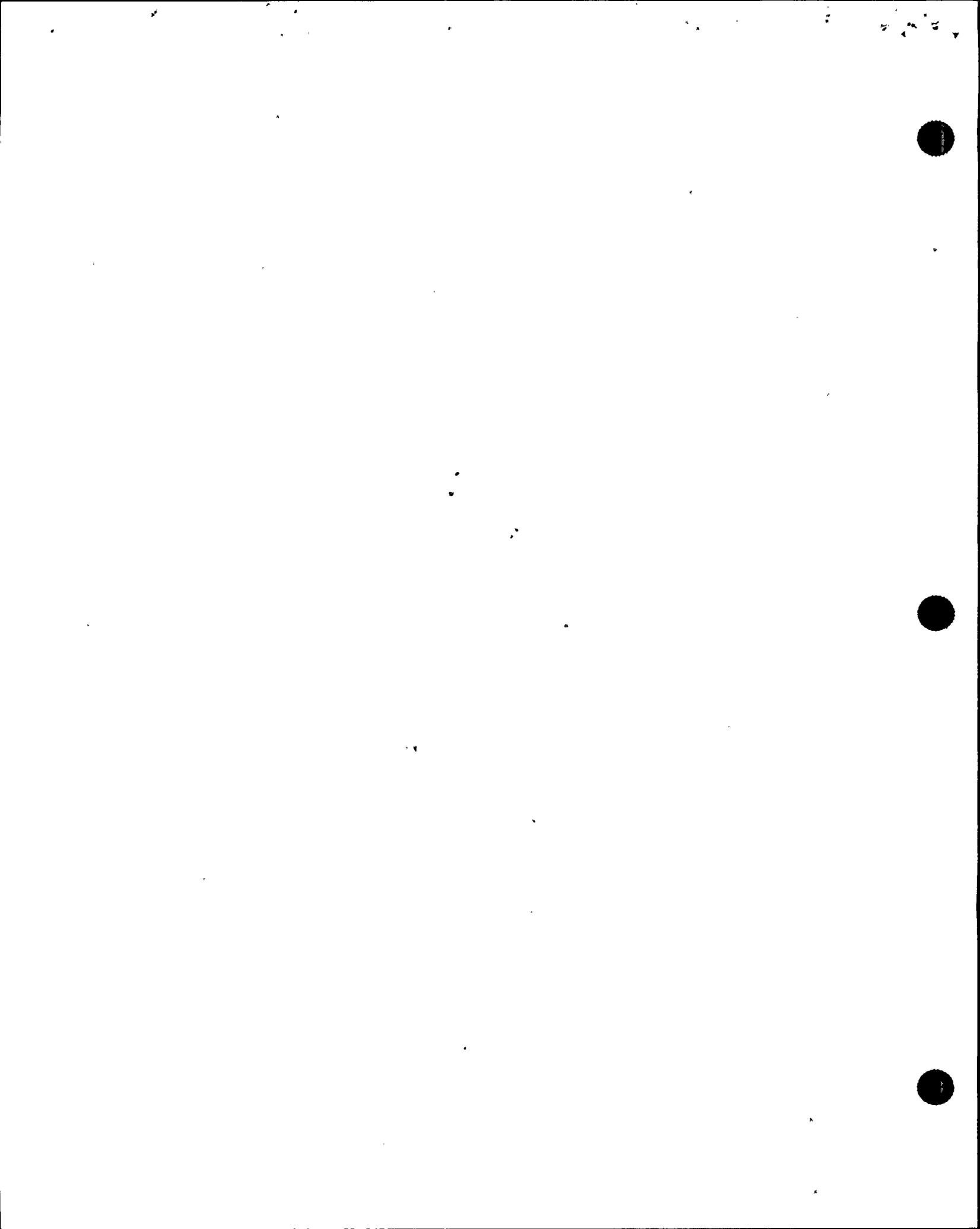
5 VOICE: Okay.

6 MR. ROSENTHAL: Meeting adjourned.

7 [End of meeting.]

8

9



OFFICIAL TRANSCRIPT OF PROCEEDINGS

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

Title: IIT Entrance Meeting

Docket No.

LOCATION: Scriba, New York

DATE: Friday, August 16, 1991

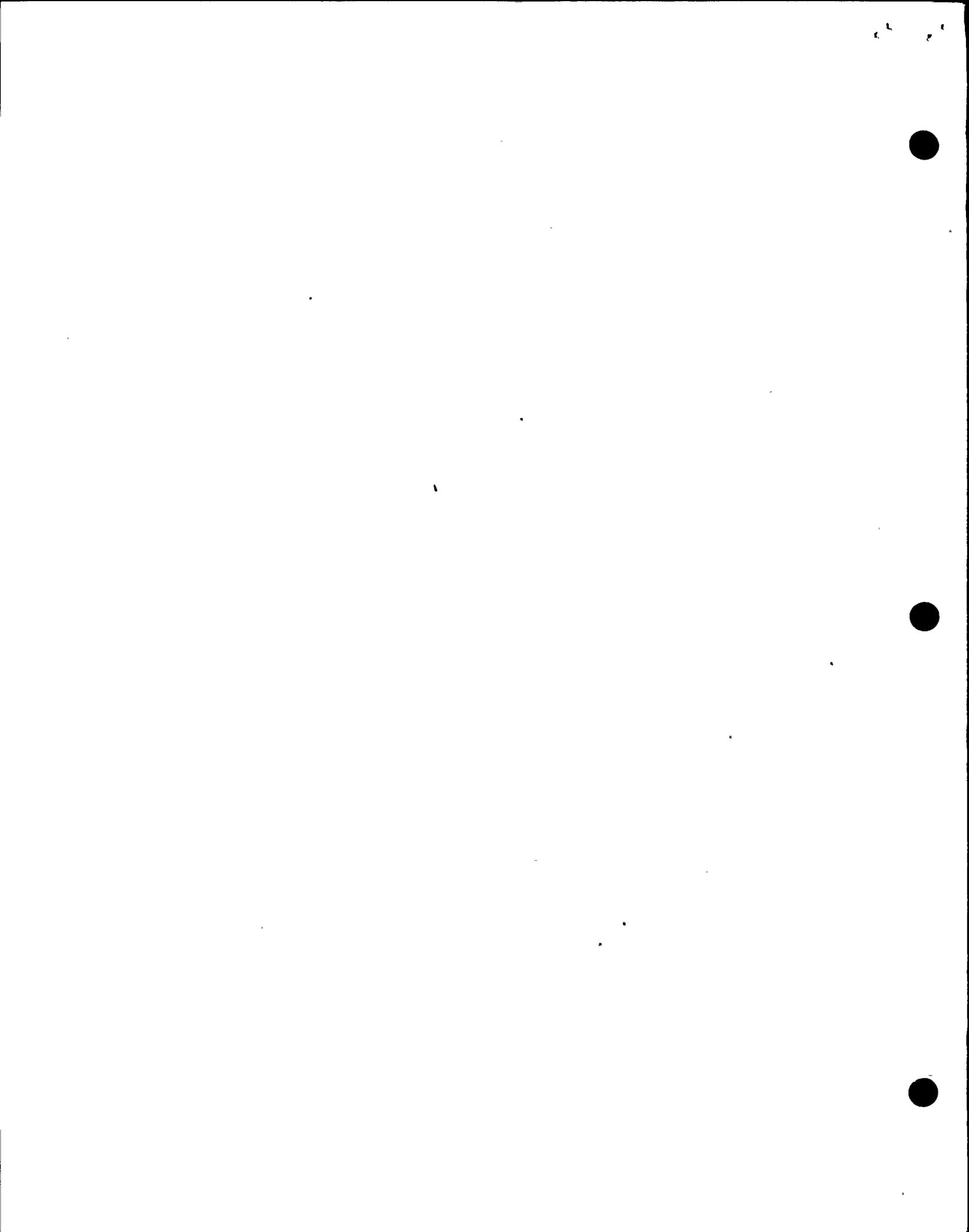
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1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION
3 INCIDENT INVESTIGATION TEAM
4

5 IIT Entrance Meeting
6

7 August 16, 1991
8

9 Nine Mile Point Nuclear Power Station, Unit Two
10 Scriba, New York
11

12
13
14 The following pages are a transcript of a tape
15 recorded by representatives of the U.S. Nuclear Regulatory
16 Commission.
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21
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25



1 PRESENT (Transcribed from Meeting Attendance Sheet):
2
3 Jack Rosenthal, Branch Chief (AEOD/ROAB)
4 Michael Jordan, Chief, Operator Licensing Section
5 Richard Conte, Chief, BWR Section, Region I
6 Dennis Allison, Senior Program Manager, AEOD
7 Gene Trager, Reactor Systems Engineer
8 Julio Lara, Reactor Engineer, Region I
9 John Kauffman, Senior Reactor Systems Engineer, AEOD
10 Carl Sisco, Operations Engineer
11 Stan Wilczek, Jr., Vice President, Nuclear Support
12 B. Ralph Sylvia, Executive Vice President, Nuclear
13 Joseph F. Firlit, Vice President, Nuclear Generation
14 Martin J. McCormick, Plant Manager, Unit 2
15 James A. Perry, Vice President, Quality Assurance
16 Richard B. Abbott, Manager, Engineering, NMP-2
17 William J. Vatter, Assistant Manager, Human Performance,
18 INPO
19 Craig Z. Gordon, Senior EP Specialist, Region I
20 Kim Dahlberg, Plant Manager, Unit 1
21 Steve Doty, General Supervisor, Electrical Maintenance
22 John Conway, Manager, Technical Support
23 Jerry Helker, General Supervisor, Operations
24 Tom Tomlinson, Supervisor, Reactor Engineering
25 Al Salemi, Director, Emergency Preparedness



1 PRESENT (Continued):

2

3 Ray Main, Maintenance Support Engineer

4 Jim Spadafore, Independent Safety Engineering Group

5 John T. Pavel, Licensing

6 Nick Spagnoletti, Licensing

7 Joe Beratta, Security

8 Rob Temps, Unit 2, Region I

9 Carl Terry, Vice President, Nuclear Engineering

10 M. J. Colomb, Manager, Operations, Unit 2

11 Darrell Eisenhut, SRAB

12 John Vinguof, MATS

13 Jim Evans, MATS

14 John Parkinson, Niagara Mohawk Power Corporation

15 Guy Wilcow, Niagara Mohawk Power Corporation

16 D. K. Greene, Manager, Licensing

17 A. K. Julka, Supervisor, Electrical Design

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P R O C E E D I N G S

1
2 MR. ROSENTHAL: Well, let me go first. The NRC
3 has -- and you -- decided to form an incident investigation
4 team to examine the event of last Tuesday here. We've
5 informed you of it. I just brought with me today a letter
6 from Jim Taylor, our Executive Director for Operations, to
7 the Commissioners, informing the Commissioners that there
8 would be an IIT and the scope of that investigation, and we
9 can share that as the meeting goes on.

10 Clearly, you are well aware, there was an AIT
11 under way. Headquarters decided with Region I Administrator
12 concurrence that an IIT would be a better tool for the NRC
13 to use to investigate the event and its potential generic
14 implications.

15 It's more than a matter of pedantics that we call
16 this an investigation rather than an inspection. In the
17 course of finding out what happened, which is our goal, we
18 may stumble across issues which would be more of an
19 enforcement nature; we would turn them over to the Region.
20 We can't turn our back on what we know, but that is not our
21 focus. Our focus is really to find out what happened, what
22 corrective actions are needed on a plant-specific basis and
23 what plant-specific actions are needed on a generic basis.

24 The fact of the matter is that, at least within
25 the NRC, the recommendations of an IIT, especially with



1 respect to generic implications, have a visibility far in
2 excess of that of an AIT. So we are using that as a
3 mechanism. We also consider this a safety-significant
4 event, so we want to know why. We've had lots of failures
5 of uninterruptable power supplies over the years, but the
6 issue of common mode failure is, of course, of interest to
7 you and us.

8 What I want to do at the meeting here, then, is to
9 share the scope of the investigation, which relative to
10 prior ones will be narrow in scope, focused on the
11 electrical area, develop some points of contact with you,
12 and discuss the quarantine list which I'm sure is of
13 interest to you. So, that's the meeting agenda that I
14 propose.

15 The IIT is a far more formal process than AITs and
16 is patterned after investigations that are performed by the
17 National Transportation Safety Board. Just as they will
18 have, let's say an airframe manufacturer on their team, we
19 have some assistance from INPO, Mr. Vatter, who's an expert
20 in human performance ops, and we are trying to gain
21 additional help from them in the area of bus loading
22 dynamics, the actual transient response on the bus, where
23 you want somebody with some real specific industry
24 expertise. But we don't have that person yet.

25 Because it's a more formal process, we take



1 transcripts. I was not able to arrange, today, for a
2 stenographer -- we should have a stenographer here by
3 tomorrow morning -- so I had asked Mr. Firlit if we could
4 tape-record it and we would later transcribe it.

5 Not on plant tours or if we're going out, but
6 otherwise interviews will be recorded by a stenographer.
7 They will be transcribed. The person interviewed can come
8 in, read it over, we'll give them an errata sheet, we
9 clearly want to get the facts right, and then we'll hang on
10 to that. And then I expect to complete my work in about 45
11 days. I anticipate being on-site a week to ten days, write
12 a report; the first public release of that report would be
13 to the Commissioners at a meeting with the Commissioners --
14 at a public meeting -- and then whoever wants a copy of
15 their transcripts, et cetera, can have it.

16 Because it's a more formal process, documents that
17 we get we'll clearly number to identify what we're getting
18 and try to keep track of what we're getting. I'll need your
19 cooperation if we get into matters of proprietary or of
20 commercial interest. I will try, but sight unseen I can't
21 say, to keep the report, the public report of a non-
22 proprietary nature, but we just don't know where it's going
23 to go.

24 But once that report is out, of course, you'll get
25 copies of it, and then all the transcripts and the material



1 you would have access to.

2 Okay. You're getting copies of this -- the
3 charter?

4 VOICE: Yes.

5 MR. McCORMICK: I'll make sure of that.

6 MR. ROSENTHAL: Okay. Let me give you the table
7 for a few minutes.

8 MR. SYLVIA: Well, we offer our full support and
9 cooperation. I think we're both out for the same thing. We
10 clearly want to turn over every rock to find out exactly
11 what happened and what we and the industry need to do to
12 shore up our UPS system. So we look forward to working with
13 you, and we look forward to finding what we can do to have a
14 safer, more reliable source of power to the equipment
15 important to safety.

16 MR. FIRLIT: We can assure you, Jack, that you'll
17 have full cooperation by the entire team.

18 MR. ROSENTHAL: Thank you.

19 MR. FIRLIT: And Stan Wilczek, who is our Vice
20 President of Nuclear Support, who is right next to Ralph
21 right there, took the lead for us to make sure that you
22 would have adequate facilities to work out of, parking
23 spots, the mechanics of -- you know, whatever you need. You
24 had indicated that you had wanted two specific rooms where
25 you could sit down privately and interview people and so



1 forth, and that is being done, and Dan will fill you in
2 after this meeting right here. We also have the conference
3 room up there where your whole team may want to periodically
4 conference, and that would be available to you at that time.

5 If there are any other things that you need, my
6 number is 2447 -- it's the extension on this site -- and
7 I'll be there to help you out any way we can. You'll be in
8 the Unit Two security building and Joseph Beratta, who heads
9 up our security -- is Joseph here? He's right there -- is
10 right down the hall from any place that you would work at
11 and you're welcome to step in his office and ask for help,
12 and he will provide it for you. If you need any
13 secretarial, typing and so forth out of our company, Joseph
14 can certainly provide that out of his area there. He may be
15 equipped to do that.

16 If you need any equipment or something like that,
17 you just have to tell us what you need and we'll see what we
18 have here, and we'll work with you.

19 MR. SYLVIA: I talked with Kim Lawton twice
20 yesterday, and I talked with Jim Taylor late in the day and
21 I assured both of them that you would have our full
22 cooperation and if you need information or to talk to other
23 agencies, if you need our support, you have our full
24 cooperation.

25 MR. FIRLIT: We would be interested in the



1 quarantine list --

2 VOICE: Right.

3 MR. FIRLIT: -- for several reasons. We do have,
4 on our team, also, a gentleman from INPO that is familiar
5 with the HPES and the performance part of it. We want that
6 in here.

7 VOICE: Right.

8 MR. FIRLIT: We will share with you -- if you
9 don't have copies, I'm sure Rich we can get a copy of
10 it -- our formal assessment team, who's on it, the advisory
11 committee of that and what we're planning on doing on that,
12 so we'll keep you all informed of it. In addition to that,
13 we're bringing in three people, Chung Chiu from Southern Cal
14 Edison that is very familiar with failure analysis, so we
15 have an outside perspective as well as an inside
16 perspective, to take a look at the two key elements that we
17 have: the transformer failure and also these UPS units. And
18 those are the two that we want to pull as well. We're
19 looking at it from a broad scope. Right now it appears that
20 the two things -- the one that initiated and the one that
21 didn't follow up are the transformer and UPS units.

22 MR. SYLVIA: I also talked to INPO. I talked to
23 Zack Pate and Jerry Sullivan; they're going to call me back.
24 The purpose of that call was to see if they had any
25 additional people that maybe could be put on our team so



1 that they can do a better job.

2 MR. ROSENTHAL: I didn't want to share this team
3 charter earlier in the day because I had to give the
4 Commissioners time to see it first because it was addressed
5 to them. Let me just hit one administrative matter and then
6 let's talk about equipment quarantine. I'd like you to post
7 a notice that the IIT team is here, and we'll give you a
8 sample exhibit. If you can put that up on some bulletin
9 boards, that would provide an opportunity for people that
10 may have something to share that neither of us know to ask
11 to come forward. And it's specifically to solicit
12 information that other parties may have about the event.

13 MR. SYLVIA: There's another administrative
14 matter. Will you give us feedback of -- [Inaudible.]

15 VOICE: Our staffs will clearly be interacting. I
16 don't plan a formal exit, but rather it would be the
17 briefing of the Commissioners.

18 MR. SYLVIA: Will we know what your thinking is?

19 MR. ROSENTHAL: Yes, that's our process. In terms
20 of the technical facts, I'm sure that we're going to be
21 sharing technical facts. You're working on an ever more
22 detailed event sequence, I'm sure. I would ask you to share
23 that with us. I would intend to share, for example, the
24 sequence of events that we developed with you before I go
25 out. We all clearly want to get the facts right, but



1 especially questions of, let's say, generic applicability, I
2 would not share with you before I shared with my management.

3 Again, on an administrative side, we're under some
4 pressure to have a press conference and I'd like to
5 tentatively do it Monday -- we're working towards Monday
6 about 1:00 where the AIT could say what they had found to
7 date and that there was a formal turnover. Frankly, I would
8 rather meet with them early, before I know too much, than
9 when I'm half way through but not yet completed. And that
10 would be the one and only interaction I would plan to have
11 with the press until such time as we meet with the
12 Commissioners, which would be roughly 45 days from now.

13 . Every few days, at least early on, I'm going to
14 generate some sort of preliminary notification, and that's a
15 public document, and that we'll share with you -- to make
16 sure, again, that we get the facts right.

17 Okay. NRC yesterday afternoon had an internal
18 management phone call at which time we realized that it was
19 important to develop a quarantine list and it's an area that
20 I'm just going to have to work with you on a daily basis. I
21 clearly don't want to impede one of your goals, which would
22 be clearly to plan -- you want to throw the net broad enough
23 that you're going to not loose information, narrow enough
24 not to unnecessarily impact. We knew you were working on
25 the -- I believe it's the Charlie UPS?



1 VOICE: Yes.

2 MR. ROSENTHAL: And the issue came up, oh my,
3 let's not work on all of them at the same time because
4 things that you may learn from one may be of interest in
5 troubleshooting the next one and you would lose information
6 that you might want. That promoted a question on the -- at
7 least ensure in a more formal manner that information
8 wouldn't be lost in the course of troubleshooting. And, in
9 fact, I understand that your plans are to sequentially
10 troubleshoot these.

11 The great concern is that we -- in this case, five
12 specific non-safety-related -- to use the terminology --
13 uninterruptable power supplies failed. And I am told that
14 the safety-related ones functioned as designed. One of the
15 big questions is why those; why not these; and what about
16 next time? So we wanted to throw the net broad enough that
17 you wouldn't be, for example, checking over current, under
18 voltage relay -- breaker set points or something that you
19 might do as normal maintenance activity on the 1E side,
20 which doesn't seem to have been involved that would perturb
21 the system before we understood that you were doing it.
22 Clearly you're the people with the knowledge of your
23 equipment, and we're not out there with screwdrivers; we're,
24 rather, observing you. What we want to do, as I said, was
25 throw the net broad and it's time to start talking about



1 narrowing it.

2 MR. FIRLIT: Jack, for the purposes of other
3 people in the room, make sure that we all understand what
4 the word quarantine means. Could you describe your
5 definition of quarantine and what that means to us so that
6 when we walk out of here everybody understands what we can
7 and what we can't do with our equipment, then?

8 MR. ROSENTHAL: We would like you not to work on
9 that equipment, except if you have to work on that equipment
10 in order to preserve the safety of the plant or to prevent
11 further degradation of that equipment.

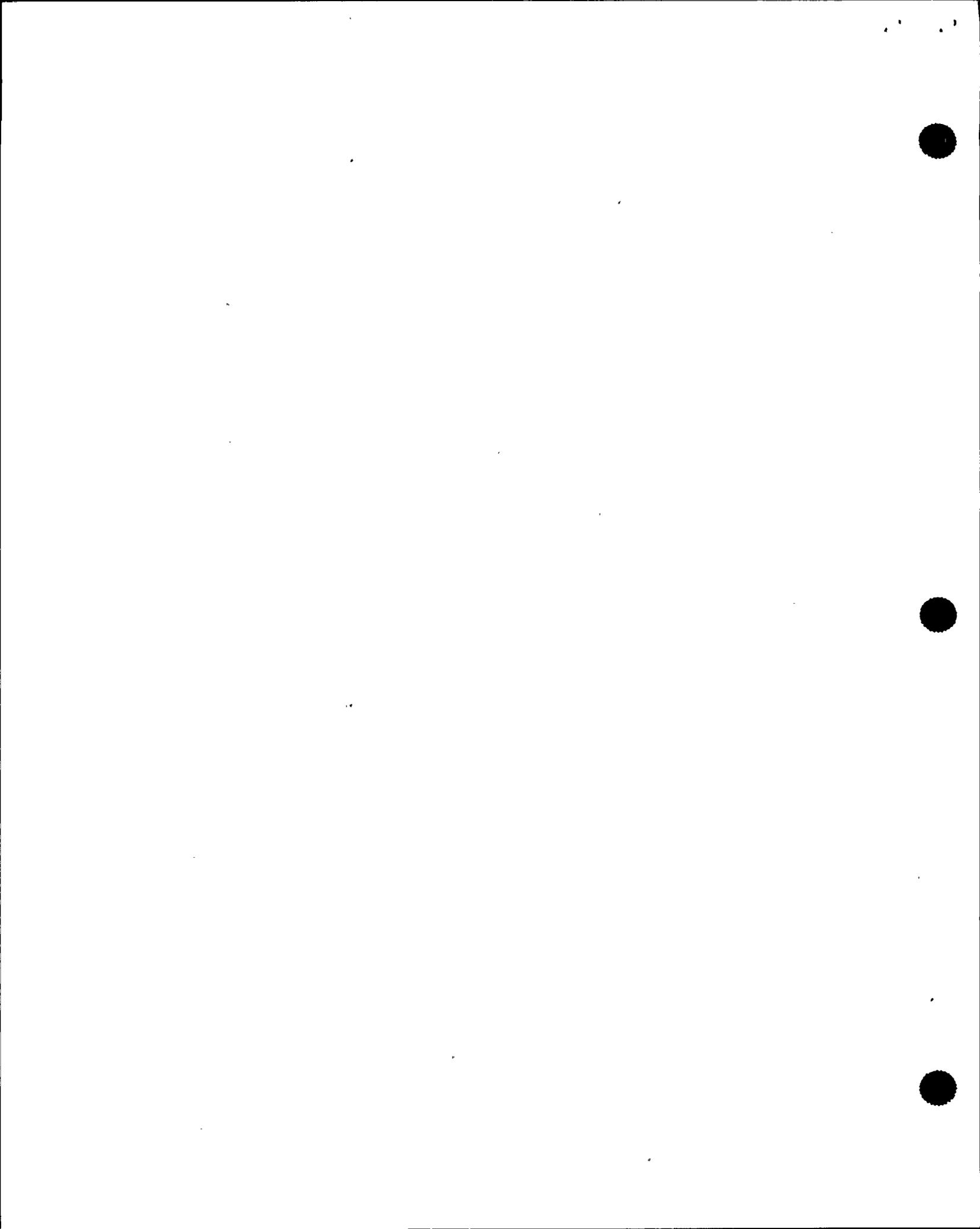
12 MR. McCORMICK: We understand that.

13 VOICE: Jack, excuse me. Or meet tech specs. You
14 understand that.

15 VOICE: Or meet tech specs.

16 MR. McCORMICK: In the communication we had with
17 Rich Conte yesterday evening, it was spelled out in
18 sufficient detail and communicated to the control room. We
19 have, in fact, placed security in the UPS room, with the
20 understanding that no one goes in there except under the
21 conditions for part of the process. And we have also
22 secured what records we have as part of our research to
23 date, and you will be able to meet and see both of those areas,
24 you know, as soon as you're ready.

25 MR. FIRLIT: Pursuing that a little bit further, I



1 just want to make sure that Jack's interpretation of that
2 and our definition are the same. We certainly want to abide
3 by what you're doing here --

4 VOICE: Yes.

5 VOICE: -- and I just don't want somebody
6 innocently and inadvertently going out there and testing a
7 piece of equipment that you may have thought was
8 quarantined. Do we fully understand where that quarantine
9 net is?

10 VOICE: We have a definition.

11 MR. CONTE: You've written them down. I saw it
12 typed in the daily plan this morning. I've given that to
13 Jack. Jack just hasn't had -- with all the logistics --
14 time to sit and digest it. I guess at this point --

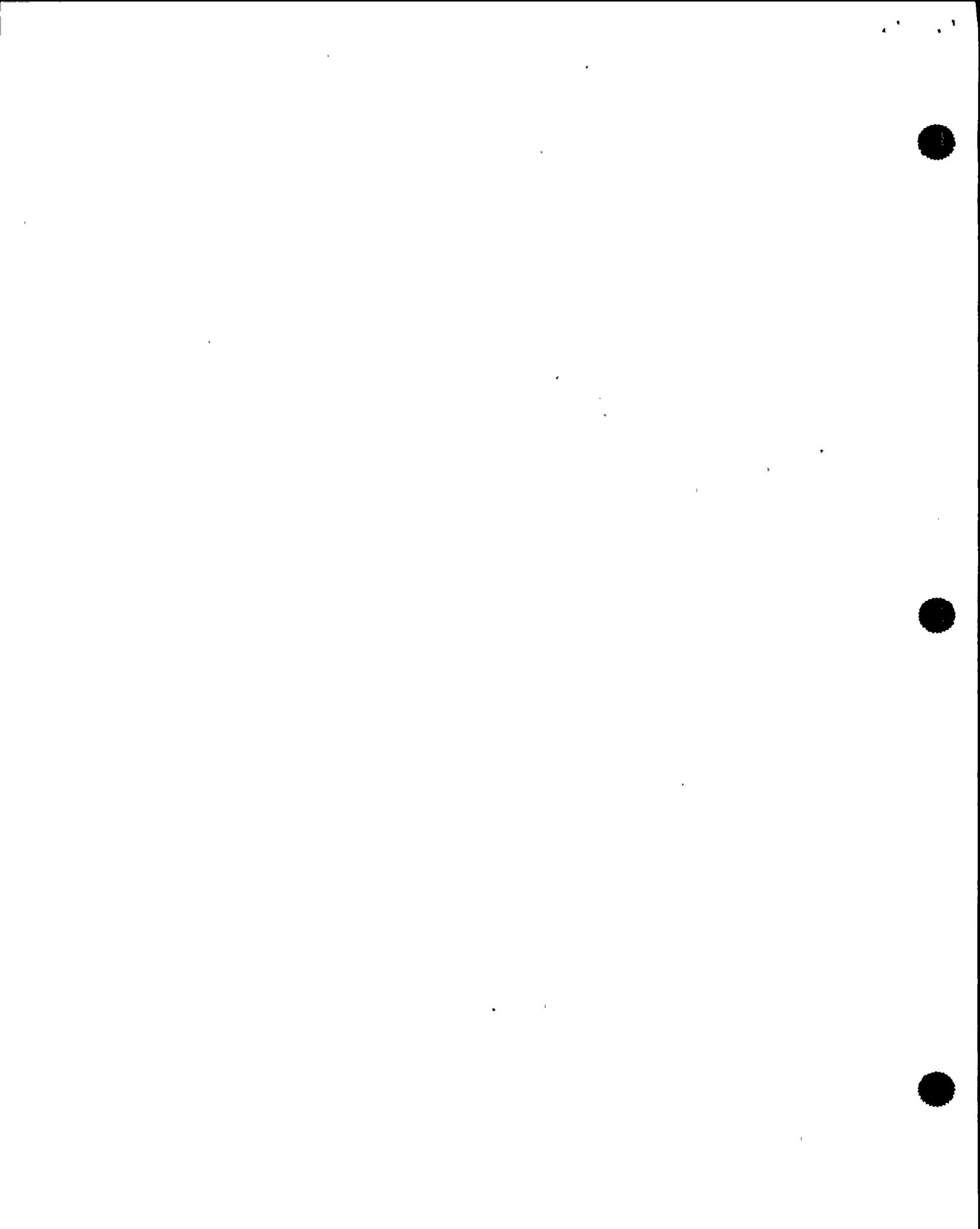
15 MR. FIRLIT: For our purposes, Rich -- [Inaudible]
16 -- at this point. I just want to make sure that people in
17 this room, that work in this plant every day, know what
18 areas we're quarantining.

19 VOICE: Yes.

20 MR. CONTE: It appears to be reasonable. I'd let
21 Jack take a look at it --

22 VOICE: Sure.

23 MR. CONTE: -- independently. If someone in the
24 room is prepared to discuss what you want to do tomorrow or
25 over the weekend on the tech spec surveillance with the MG-



1 set, speak now or -- I think Jack --

2 VOICE: Yes.

3 VOICE: -- understands what you're doing.

4 VOICE: Yes.

5 MR. CONTE: I think he'll give you the release to
6 give it. Do you want to do that now?

7 MR. ABBOTT: Unless Steve Doty -- [Inaudible.]
8 Steve Doty's our electrical maintenance supervisor, and he
9 knows --

10 MR. ROSENTHAL: Oh, let me say, I mean, it's my
11 intent that we're going to be clearly on a very fast
12 learning curve in the next couple of days and we'll, on a
13 daily basis, subtract from that web -- hopefully not add,
14 but on a daily basis we could review and cut it down. I
15 mean, even in yesterday's discussion there was -- well, what
16 about the B-phase transformer. It was clear that, well, if
17 you didn't touch it, we're just all out there kicking a
18 tire, and that you had to drain the oil out of it and open
19 it up and start looking at what's there and so we said go
20 ahead and do it.

21 The only way that I can think of is to literally
22 work on a daily basis on that list.

23 VOICE: Okay.

24 MR. ROSENTHAL: Now, what's the -- okay, the motor
25 generator sets?



x



1 MR. McCORMICK: We have a tech spec surveillance.

2 VOICE: It's a six --

3 VOICE: Yes.

4 MR. DOTY: It's a surveillance form that we use to
5 test your outside organization reporting to electrical on
6 site, and they test the under frequency and the voltage and
7 overvoltage characteristics on a -- it used to be a six
8 month requirement, now it's six months or while you're in a
9 cold shut down. We have it scheduled for tomorrow. In
10 conjunction with that we have a corrective maintenance work
11 request to swap a breaker in accordance with the drawings;
12 it has been analyzed to be acceptable, but we want to make
13 it according to the drawings. That was going to go on in
14 conjunction with the surveillance.

15 Do you have more specific questions?

16 MR. ROSENTHAL: How do you know the motor
17 generator sets weren't involved? They're hung off.

18 MR. DOTY: On the electrical protection
19 assemblies, the EPAs, we know that they didn't trip because
20 to reset those is the manual actuation.

21 MR. ROSENTHAL: Your flags didn't pop?

22 MR. DOTY: Right.

23 MR. ROSENTHAL: And that's documented?

24 I guess last Tuesday you had people going out and
25 looking at stuff and then reporting; that information was



1 coming into the TSC? That's my understanding; is that
2 right?

3 VOICE: Actually it was just one of the control
4 room -- [Inaudible] -- complete monitor of events --
5 [Inaudible.]

6 MR. ABBOTT: Information probably comes directly
7 into the control from operators and is fed to the TSC from
8 the control room.

9 MR. ROSENTHAL: So, I mean, somebody was trying to
10 collect this stuff.

11 MR. McCORMICK: We did go out and document all the
12 relay targets and everything that we had in order to --

13 VOICE: Okay.

14 MR. McCORMICK: Once the plant became stable and
15 we shut it down, we went out and recorded -- we didn't reset
16 anything -- took all the target information and that's all
17 been made available to the recovery team, and certainly it's
18 part of the documents.

19 MR. ROSENTHAL: Can you share that with us?

20 MR. McCORMICK: Sure. I think we have all that
21 material put together and it's part of your investigation.
22 We understood that that would certainly be where we would
23 start. We're hopeful we have been on the same path you want
24 to get on and we have all that data so that anything that
25 operated or that didn't operate that was associated with the



1 transformers, generators, both relaying or with the targets,
2 are all available. So all that data was taken.

3 MR. ROSENTHAL: And we know that there was nothing
4 in the area of the breaker that you want to swap out or the
5 MG-set that wasn't -- [Inaudible] -- your process that
6 wasn't aligned as you would expect -- [Inaudible.]

7 MR. McCORMICK: I'll verify that before we go any
8 further. As far as I know there was no impact on that
9 equipment.

10 MR. ROSENTHAL: Then we'll take it off -- I mean,
11 you know, presumably the flags didn't go off on any of it.
12 In that case we'll take it off and you'll go on with you
13 work.

14 Okay, now, apparently there was also some -- I
15 mean an example was that there were some actuated devices
16 where you wanted to put them in so that you could proceed
17 along, and we said, Yes, go ahead and isolate the breaker
18 and go ahead and do the work on the --

19 MR. CONTE: A component isolation. That's written
20 down --

21 MR. ROSENTHAL: -- a component isolation so you
22 can keep going.

23 MR. McCORMICK: On feeder breakers that would tie
24 into bus work or tie buses. We made that part of the
25 quarantine. But a piece of equipment that would be off that



1 bus if it wasn't involved in our problem that's part of our
2 markup in order to work on the pump --

3 MR. ROSENTHAL: Right.

4 MR. McCORMICK: -- we received a request to go
5 ahead and do that.

6 MR. ROSENTHAL: Right. Right.

7 MR. McCORMICK: That would be marked down the
8 breaker and just pulled out of the compartment.

9 MR. ROSENTHAL: Right.

10 MR. McCORMICK: But nothing that tied to them like
11 a bus.

12 VOICE: Right.

13 MR. ROSENTHAL: But that is allowing you to
14 proceed on with your maintenance.

15 MR. McCORMICK: Yes. We're in pretty good shape.
16 I don't have any real serious problems. If I have some we
17 have an agreement that we talk about it and we don't have
18 any real problems at the moment.

19 VOICE: Okay.

20 MR. ABBOTT: There is some breaker maintenance
21 that our station maintenance people want to do with the
22 plant over the weekend that's due next week. We could show
23 that to somebody, probably this afternoon, because we want
24 to get back to these people so that they can plan their
25 work. That's out in Scriba switch yard, which is south of



1 here. We want to describe that to somebody -- [Inaudible.]

2 MR. ROSENTHAL: Are you planning any work on the
3 special surveillances or testing of the 1E UPS's -- you
4 know, as of now?

5 MR. McCORMICK: Not that I know of. We would
6 certainly understand any uninterrupted power supplies
7 would be a subject of discussion, but --

8 MR. ROSENTHAL: Good.

9 MR. McCORMICK: -- I'll verify that, but I don't
10 know that.

11 MR. ABBOTT: Not right now from an investigative
12 nature, but there may be routine things we want to do with
13 them, but we're not doing that until we talk about that.
14 There may be some routine tests, but not of an investigative
15 nature yet.

16 MR. ROSENTHAL: You know, this is almost
17 speculative at this point, because, if you start asking
18 questions like what failed, was it a revealing fault, how
19 long did it exist -- I mean, you know, that sort of thing.
20 From troubleshooting the failed ones, now, based on that,
21 that may impact on how one does surveillance testing,
22 maintenance, of the operable ones, you know. We're just
23 speculating.

24 So I think what we have to do is use -- okay, you
25 don't have any problem with the current quarantine list, I



1 take it?

2 MR. McCORMICK: We have no problems with the
3 current quarantine.

4 MR. ROSENTHAL: Okay. And we're agreeing to talk
5 to each other literally daily.

6 MR. McCORMICK: That's correct.

7 MR. ROSENTHAL: And we'll work together on it.

8 MR. McCORMICK: We have a morning meeting -- we
9 went into our outage scenario; we have a number of things we
10 are working on, and at that meeting we should have a pretty
11 good handle, and before that, on anything that's going to
12 take place so we'll flag it. And certainly, Rich, I know,
13 has attended at least the last couple ones and been into
14 those. If we have any questions, that's the time when we
15 bring them to the floor and try and get answers.

16 MR. ROSENTHAL: Now, you had some work on the HPCS
17 which is --

18 VOICE: Right.

19 MR. ROSENTHAL: -- a commitment at the
20 [Inaudible.] I consider that outside the IIT.

21 MR. McCORMICK: Okay. We're moving on that.

22 MR. ABBOTT: Also, we're looking at the HPCS --
23 [Inaudible.]

24 MR. McCORMICK: Division 3 --

25 MR. ABBOTT: It's more than just a pipe



1 inspection. We will go into the bus outage for Division 3.
2 We're working on equipment for Division 3, which is all --
3 [Inaudible.] That was not part of the 14 hours.

4 MR. ROSENTHAL: It is not part of the event, not
5 part of the quarantine.

6 VOICE: Right.

7 MR. CONTE: I still have your beeper. If there
8 are any questions on the quarantine overnight, I'm still at
9 the Captain's Quarters tonight.

10 VOICE: Great.

11 MR. CONTE: Give me a call. I'll probably turn
12 the beeper over to Jack if he wants to assume it, or to the
13 assistant leader here. So, I would recommend, though, if
14 you find yourself getting into a backlog of work requests
15 because of the quarantine list, that may be the signal to
16 get down to a component level.

17 For example, the restriction on lighting may be
18 overly restrictive. We would entertain some discussion
19 tomorrow or Sunday or Monday on what we can do to narrow
20 down lighting into the real components that did not work.

21 MR. McCORMICK: We do have some work requests that
22 we're holding back on those that we had some maintenance
23 work to be done on lighting. So we'll talk about those.

24 MR. ROSENTHAL: Fine.

25 Let me give you just a couple of minutes to read



1 this charter. I'm sorry that I couldn't -- the best thing
2 to do is to hand carry it up, as quickly as we can.

3 [Pause.]

4 MR. ROSENTHAL: Let me just point out that it's --
5 actually we've tried to narrow the scope, than other IIT's.
6 The scope really is oriented towards the electrical area.
7 When we talk about plant response on the third indented
8 paragraph, if my charter is to find out the loss of the five
9 UPS and establishing an understanding of why certain other
10 UPS continue to function, then that, in turn, drives me to
11 be cautious about throwing this quarantine net to include
12 that other equipment.

13 MR. McCORMICK: Right.

14 MR. ROSENTHAL: Which I'm sure you're going to
15 want to get into soon.

16 MR. McCORMICK: Well, we have the same question.
17 We understand what you're trying to get at. [Inaudible.]

18 MR. ABBOTT: Question: Right now we do not have a
19 quarantine on our safety-related UPS's. [Inaudible.] We do
20 not have a quarantine on the safety-related -- just on the
21 1A, B, C, and -- excuse me -- 1A, B, D, and G.

22 VOICE: Hopefully, people will switch.

23 MR. ABBOTT: We'd all switch power distribution
24 system.

25 MR. CONTE: I thought it was safety-grade AC



1 distribution and DC distribution also.

2 MR. ABBOTT: That's right. Never mind. Pardon
3 me.

4 MR. CONTE: Once again, if you need that -- if
5 that's overly restricting you --

6 VOICE: [Inaudible.]

7 MR. ROSENTHAL: Who would be a good point of
8 contact?

9 VOICE: [Inaudible.]

10 VOICE: Okay.

11 MR. SYLVIA: Marty McCormick is the plant manager,
12 so he ought to be the center point of contact for all
13 activity, because he'll cut across everything. I'll be
14 available with any other questions you may have regarding,
15 you know, any of the other assistance that you may need, and
16 then Rick Abbott is the gentleman that's in charge of the
17 assessment team that we have, so any sharing of information
18 and so forth that Rick has, then you can contact him
19 directly on it. I don't know if he has a phone, but his
20 beeper number is 1144. Do you have a phone yet?

21 VOICE: No.

22 MR. ALLISON: Rick, would you be the appropriate
23 person to ask for certain people for interviews and set up
24 interview schedules and things like that?

25 MR. ABBOTT: We'll start with me, but we have an



1 organization that we're putting together right now -- those
2 certain areas are delegated to certain leads, and they're
3 all here in the room, if you need to meet and know where
4 they are.

5 VOICE: All right.

6 MR. ABBOTT: They're arranging whatever needs to
7 be arranged. For instance, the Operations Superintendent is
8 arranging the operations interviews that you've asked for
9 over the week. You'll be able to meet him right after the
10 meeting. Jerry is here, but you'll be able to coordinate
11 the interviews.

12 VOICE: Okay.

13 MR. CONTE: It has worked pretty good with the IIT
14 that a licensing individual, John Pavel, has -- if there are
15 any administrative needs, any needs, contacts with people,
16 it has worked well for him to get a-hold of the appropriate
17 individuals, and I guess he's dedicated to the team now.

18 MR. PAVEL: Yes.

19 MR. CONTE: You're on the assessment group; is
20 that right, John?

21 MR. PAVEL: Yes.

22 MR. ABBOTT: I have a package that's just a three-
23 pager that describes our team with the names on them and
24 what all people are responsible for, the various sections of
25 hardware, if you want it.



1 MR. CONTE: Jack has that.

2 Unfortunately, we don't have all the IIT members,
3 do we?

4 MR. ROSENTHAL: No. No. Let me -- Let me just
5 give you a little background, and that is that, at least
6 right now, I head the Reactor Operations Analysis Branch in
7 the office for Analysis and Evaluation of Operational Data.
8 We are the people that brought you the industry generic
9 interest in MOV's and parts they make from the Davis-Besse
10 IIT, but now that's a major industry exercise. We did a
11 case study on instrument air. For better or worse, we did a
12 case study on inverters in 1986. I wasn't even involved
13 then in that organization. We're going to go back and find
14 out what we wrote up about that experience then. People
15 have known about inverter failures. We did decay heat
16 removal, air systems, service water -- you probably received
17 a sort of generic letter on service water; that came from a
18 study that my branch had done, typically, a year and a half
19 or two years before.

20 And so you can see that just by Jim Taylor
21 choosing me, he's thinking generic implications.

22 MR. SYLVIA: [Inaudible] -- made very clear.

23 MR. ROSENTHAL: Okay.

24 VOICE: [Inaudible.]

25 MR. ROSENTHAL: Jose Ibarra is an electrical



1 specialist, Michael Jordan, ops, John Kauffman, systems and
2 ops; Frank Ashe, who is not here yet -- he should be
3 arriving tonight -- is the man who wrote the inverter study
4 in '86 and is an electrical engineer. Walt Jensen is
5 thermal hydraulics, systems. Rich Conte is, again, human
6 performance. Mr. Vatter is human performance or ops and, as
7 I said earlier, INPO may be adding somebody -- what I had
8 specifically asked was, I wanted somebody who could do
9 dynamic bus analysis, not just simple loadings. And they
10 may or may not be able to come up with that expertise.

11 MR. SYLVIA: [Inaudible] -- a fellow from Duke
12 Power.

13 MR. ROSENTHAL: From Duke, that's right.

14 Okay. Almost everybody here -- we have a mix of
15 people who have worked for AEs, worked for vendors and
16 nobody on this list is a homegrown NRC -- everybody has sat
17 on both sides of the table. And I have at least one SRO
18 also. So I think it's a good group.

19 MR. ABBOTT: May I introduce my team?

20 MR. ROSENTHAL: Please.

21 MR. ABBOTT: I think it would be helpful here.

22 Starting on the far right, Jerry Helker, who is the
23 Superintendent of Operations, and he's responsible for the
24 operations and control room part of this assessment. Next
25 to him is Tom Tomlinson; he's our Supervisor of Reactor



1 Engineering for the plant. He's in charge of the plant
2 response aspects, transient analysis, and any [Inaudible]
3 line equipment problems that were incurred during the
4 shutdown process.

5 Then there's John Conway; he's our Manager of
6 Technical Support for Unit Two. He's assigned overall
7 responsibility for the UPS investigation. Next to him is
8 Steve Doty; he's our Electrical Maintenance Supervisor, and
9 he has the main transformer evaluation and corrective
10 actions.

11 Next to him is Anil Julka, Anil is our Supervisor
12 of Electrical Design and Engineering, and Anil has
13 electrical distribution evaluation and root cause, et cetera
14 [Inaudible]. And finally behind that group is Jim Spadafore
15 -- not finally, but Jim Spadafore is our Supervisor of ISEG,
16 Independent Safety Engineering Group, he has been in charge
17 of putting together the overall safety assessment, with
18 support, obviously, from Engineering and Licensing to
19 provide the overall final report, if you will, and the
20 safety certificates and overall assessment.

21 There is also Al Salemi. Al Salemi was charged
22 with evaluating and assessing the emergency plan aspects of
23 the event.

24 MR. FIRLIT: Jack, one clarification I need to
25 have: If we satisfy ourselves that we understand what the



1 root cause is and, you know, whether it's design change or
2 equipment failure or whatever it is, and satisfy the region
3 as well, the implication of your 45 day report -- does your
4 report have to come out before we can consider restarting
5 this plant again before the Commissioners?

6 MR. ROSENTHAL: No.

7 MR. FIRLIT: Okay, I just wanted to clarify that.

8 MR. ROSENTHAL: No. The restart decision will be
9 with Region I.

10 MR. FIRLIT: Okay.

11 MR. ROSENTHAL: I'm sure that they'll ask for
12 input from me.

13 VOICE: Oh, yes.

14 MR. ROSENTHAL: But, you know, my report is on a
15 45-day clock. Your actions are on a different clock.

16 MR. FIRLIT: And ours may be shorter or longer
17 depending on what it is?

18 MR. ROSENTHAL: That's right. That's right.

19 For example, I don't know if you know the
20 condition of your turbine. I don't know if you had
21 problems. I don't know what kind of maintenance problems
22 you're going to get into and that's why we're going to have
23 to talk about this quarantine daily. I'm sure you want to
24 come to the --

25 MR. McCORMICK: We're megging the generator, for



1 example because of the bus -- the transformer failed, so
2 we're going ahead and doing that kind of work, the turbine
3 and so forth and the other things. We're essentially moving
4 into what was a 14-day outage and are proceeding to work
5 within that window.

6 There's a little confusion to me as to how much
7 latitude we have, given the tech staff that we have and the
8 consultants that we're bringing in, to understand and find a
9 fix to the problem. We have to satisfy ourselves --

10 MR. ROSENTHAL: That's right.

11 MR. McCORMICK: So, I mean, we're clearly in a
12 mode to say, what happened here, and can we say that we're
13 ready to start? We have to think the fix too. I mean, we
14 have to go ahead and so what we need is to get your buy in
15 and let's go together and find out what it's all about and
16 try and fix it. I guess that's the thing that will help us
17 all once we get that working relationship going.

18 MR. ROSENTHAL: Right. I think that we recognize
19 that you plan to ship that transformer off site.

20 MR. McCORMICK: It will be moved, certainly
21 initially, out of the compartment it's in, and it's open now
22 if you want to take a look at it.

23 MR. ROSENTHAL: Yeah. We did do one walk-by, for
24 people to crawl up there and take a look in. I know that
25 you're not going to have -- not that I know. I suspect that



1 you're not going to have a good root cause on that for some
2 period of time. That doesn't bother me, but the UPS are a
3 different story.

4 MR. McCORMICK: Before this dynamic analysis, you
5 know, we would probably have to go and say given that fault
6 that something happened through our underlying system that
7 set these devices as they are presently designed into lock-
8 out.

9 MR. ROSENTHAL: I don't want to belabor the
10 meeting, but if you're willing to chat, do you have the
11 capability to do the dynamic load analysis in-house or would
12 you be contracting that out?

13 MR. McCORMICK: What we're doing is bringing in
14 expertise to help us and say what would we do to find out
15 what went on, including the vendor and also through our
16 engineering department.

17 MR. ABBOTT: We're evaluating the need for dynamic
18 load analysis in that we've got some sort of investigation
19 right now with the UPS itself, so we need to share that
20 information with you.

21 MR. ROSENTHAL: Yes.

22 MR. ABBOTT: I think as soon as we can.

23 We don't have the in-house capability to dynamic
24 load testing analysis, no.

25 MR. ROSENTHAL: Denny, are there more



1 administrative things that I have missed?

2 MR. ALLISON: I think we have covered them. Yes.

3 MR. ROSENTHAL: Why don't we give Niagara Mohawk
4 the last word?

5 MR. McCORMICK: Before we finish with
6 administrative, arrangements that I'm working toward for
7 this weekend are to recover some of the folks who were
8 involved in the control room crew and those first responders
9 to the event of the loss of power to the UPS, so that we can
10 begin an interview process.

11 MR. ROSENTHAL: Right.

12 MR. McCORMICK: We're targeting -- and we haven't
13 completed it yet -- four people for Saturday, four people
14 for Sunday.

15 MR. ROSENTHAL: Okay.

16 MR. McCORMICK: We have probably -- and because
17 these fellows were off, they didn't know about this, it came
18 after they were gone --

19 MR. ROSENTHAL: Sure.

20 MR. McCORMICK: I've had three that I am certain
21 of at the moment. And we'll make that known, that record --
22 that interview schedule available before the day is out.

23 MR. ALLISON: Okay. I would like to get together
24 and give you some papers after the meeting.

25 VOICE: Okay.



1 MR. ALLISON: I have a little handout that you
2 might want to give to your people about how they can review
3 the transcripts and make corrections and a sample of the
4 notice to put up on the bulletin board and things like that.

5 MR. McCORMICK: Jerry Helker, I think, will be
6 coordinating that, and I also understand from Rich that our
7 present plan is at 5:00 or thereabouts we'll have a more
8 detailed walkdown, and we have two people available to do
9 that, beginning in the control room.

10 MR. ROSENTHAL: Good. Just a few hours, and then
11 what I would like to do tomorrow morning is, I think I would
12 like to spend some time in the simulator because I can walk
13 up to things without --

14 VOICE: Sure.

15 MR. ROSENTHAL: -- you know, okay. And then back
16 into the control room starting at, let's say, eight, and
17 then the first interviews at 10. There's a great rush to do
18 the interviews, because with each passing day the memory
19 changes and yet the interviews just won't be profitable
20 unless we have some understanding of the hardware, and
21 looking at P&ID's and schematics, which I've done, is just
22 not the same.

23 MR. McCORMICK: So, you want to be in the
24 simulator at seven?

25 MR. ROSENTHAL: Eight?



1 MR. McCORMICK: Oh, at eight? Okay.

2 And the simulator control room, right? And then,
3 begin interviews at 10. Okay. We'll take care of that. Is
4 that the whole team or just --

5 MR. ROSENTHAL: Well, what I would like to do
6 is -- yes, the whole team will be in the -- you see, we're
7 transitioning, and only Rick Conte will stay on the team.
8 This is part of this idea of an independent review, and
9 that's balanced by the fact that I need some continuity.

10 VOICE: Sure.

11 MR. ROSENTHAL: Okay.

12 MR. McCORMICK: We're glad to have Richard. He's
13 been -- he understands, and I think it will be a help to us
14 both to get us through this transition so we can get off on
15 the right foot.

16 MR. ROSENTHAL: Then I would -- yes, the whole
17 team will be in on the control room and the simulator.
18 Later on we'll break up into little pieces. In terms of the
19 interviews, I would like to have -- let's see -- two on one,
20 no more than two people from the team -- maybe three, but
21 probably two from the team talking to any one individual.
22 It just doesn't work well to have somebody sitting there
23 with 12 other people. And I think, by our procedure, if
24 they want to have somebody there, they can.

25 VOICE: Are these people all ops people or are



1 they also like your in-plant -- the four people on Saturday
2 and four people on Sunday?

3 MR. McCORMICK: They're all operators, but some
4 are in-plant operators as opposed to control --

5 VOICE: They're not all licensed people?

6 MR. McCORMICK: No, there were some licensed that
7 went down in that --

8 VOICE: Okay.

9 MR. McCORMICK: There will be non-licensed and
10 licensed. Now, I don't know what the schedule is for
11 tomorrow, who we were able to contact --

12 VOICE: I was just curious, how big your crews
13 were, whether there were eight people in the control room at
14 one time or if that was including your plant.

15 VOICE: [Inaudible.]

16 VOICE: [Inaudible.]

17 MR. ROSENTHAL: We'll see where it goes from
18 there.

19 MR. McCORMICK: Okay.

20 MR. CONWAY: Are we going to establish contacts
21 with our counterparts today? Is there a plan for tomorrow
22 or --

23 MR. ABBOTT: As we were organized, is there some
24 counterpart type arrangement that you will have?

25 MR. ROSENTHAL: Yes.



1 VOICE: [Inaudible.]

2 MR. ROSENTHAL: I'm sure that we are going to
3 parallel you, but --

4 Why don't we do that right after this meeting?

5 VOICE: Okay.

6 MR. ROSENTHAL: Meeting adjourned.

7 [End of meeting.]

8

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