

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission
Incident Investigation Team

Title: Nine Mile Point Nuclear Power Plant
Interview of: TOM TUTTLE

Docket No.

LOCATION: Scriba, New York

DATE: Tuesday, August 20, 1991

PAGES: 1 - 19

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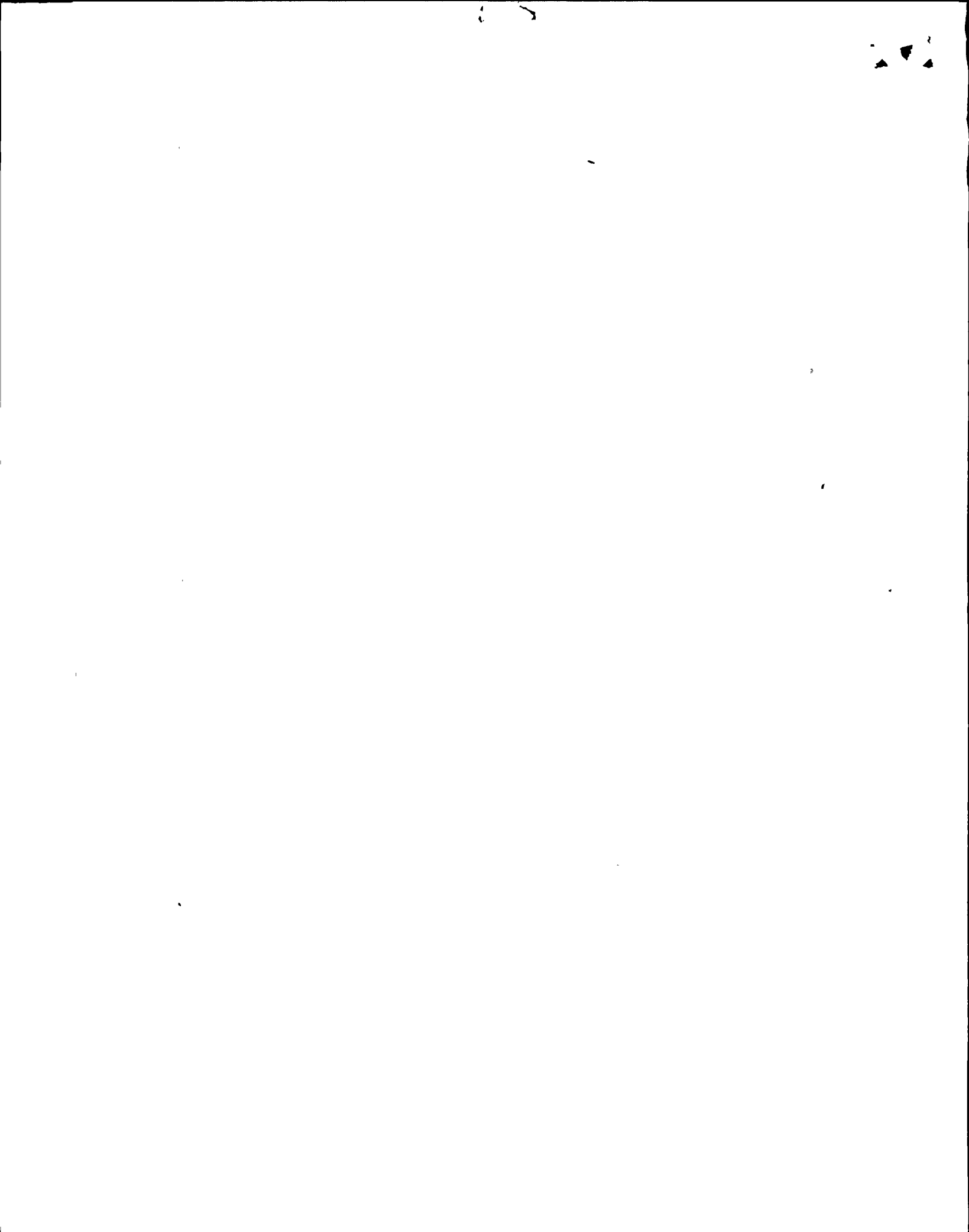
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ADDENDUM TO INTERVIEW OF Tom Tuttle / SPPC
(Name/Position)

<u>Page</u>	<u>Line</u>	<u>Correction and Reason for Correction</u>
2	20	I DO NOT HAVE A STRONG NUCLEAR BACKGROUND
6	18, 19, 20	"INC" IS "I AND C" (INSTRUMENTS AND CONTROLS)
8	8	WE HAD A FORM THAT WE WOULD USE TO RUN DOWN ALL THE DIFFERENT STATUSES OF THE PLANT
10	16	AS SOON AS HE SAID (THE SSS), I CANT DETERMINE THE STATUS

Page 1 of 1 Signature Thomas Tuttle Date 8/28/91



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
INCIDENT INVESTIGATION TEAM

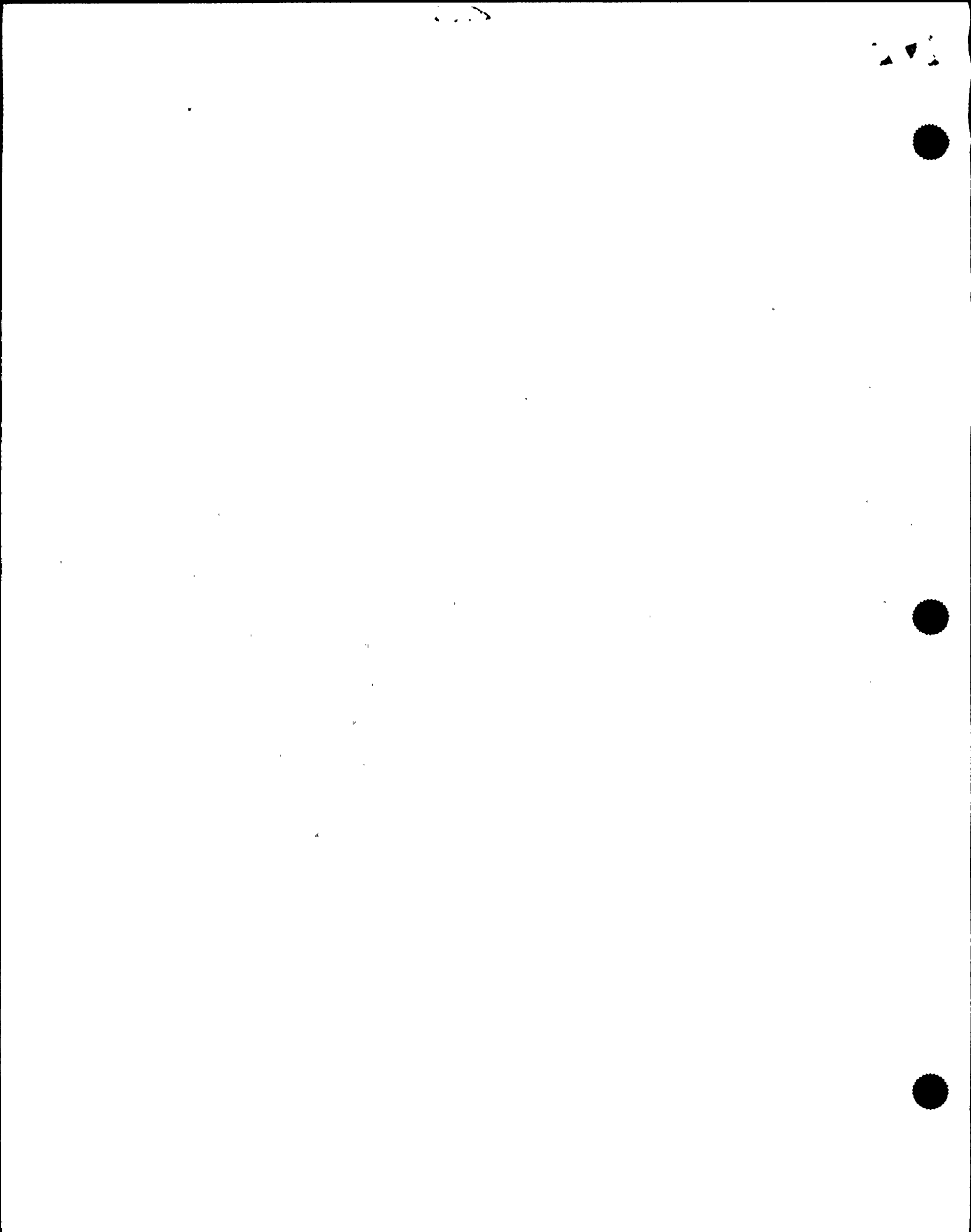
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Interview of :
TOM TUTTLE :
(Closed) :

Conference Room B
Administration Building
Nine Mile Point Nuclear
Power Plant, Unit Two
Lake Road
Scriba, New York 13093
Tuesday, August 20, 1991

The interview commenced, pursuant to notice,
at 9:30 a.m.

PRESENT FOR THE IIT:
Michael Jordan, NRC
Rich Conte, NRC



P R O C E E D I N G S

[9:30 a.m.]

1
2
3 MR. JORDAN: We're at Nine Mile Point, Unit Two,
4 it's August the 20th, 1991, at approximately 9:30 in the
5 morning. We're here to cover an event of a transient that
6 occurred on August 13th, 1991, and my name is Michael Jordan
7 and I'm leading the interview with Tom Tuttle.

8 MR. CONTE: My name is Richard Conte, I'm section
9 chief from Region One.

10 MR. TUTTLE: My name is Tom Tuttle, who is the
11 oncoming ESP or SEPC, I guess is what we call them.

12 MR. JORDAN: Okay. Tom, why don't you just give
13 us an idea of what your background is and your position
14 that you held here at Nine Mile.

15 MR. TUTTLE: I'm a kind of relative new employee
16 for Nine Mile. I joined last summer and immediately went
17 into a certification classes, SRO certification class, so
18 I'm kind of a rookie and we're trained as -- to be STA's,
19 eventually. I'm on shift technical advisor's.

20 I have a strong nuclear background, I actually
21 used to work for Westinghouse for about 10 years for steam
22 turbines and generators and I have a lot of balance of plant
23 experience, but as far as nuclear details, I'm relatively
24 new.

25 MR. JORDAN: Okay.

12



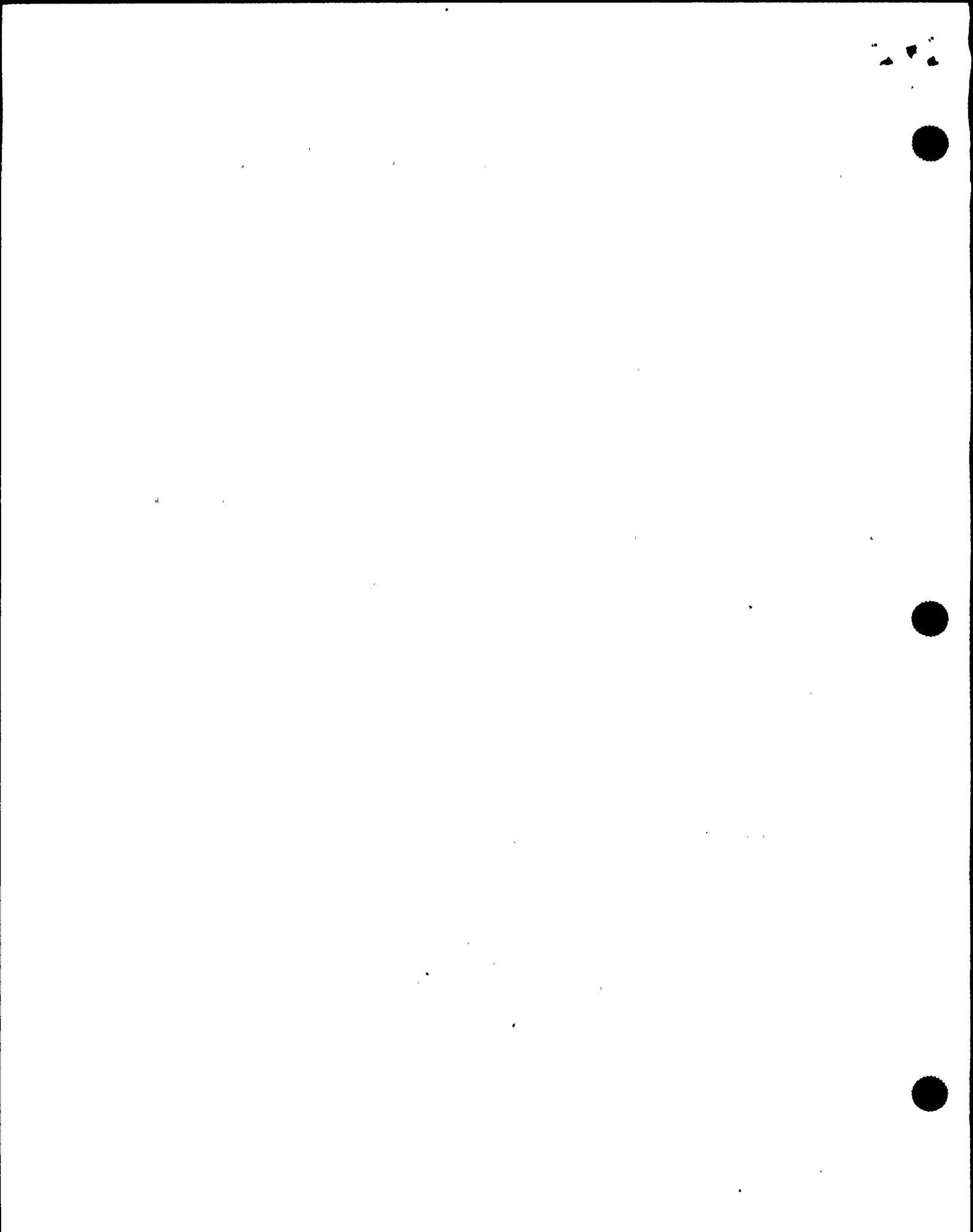
1 MR. TUTTLE: So, that's why I don't have a lot of
2 plant experience, and I may not be able to give you a lot of
3 detailed information.

4 MR. JORDAN: Okay. Why don't you start from what
5 you were doing just prior to the event and then walk us
6 through what you saw, what you heard, what you observed,
7 what activities you were responsible for during the event
8 and what you did.

9 MR. TUTTLE: Okay. My shift started at 6:30 so I
10 had come in at quarter of six to relieve the SEPC who was on
11 shift, Al Denny. We had just started talking and started
12 our turnover when the lights -- we're not directly in the
13 main control room, we're off to the side at a desk area off
14 to the side, and I noticed the lights flickered. At that
15 time Al and I went out into the main control room area and
16 we noticed all the annunciator lights were out; and we
17 talked with Mark Davis and the SSS immediately came out and
18 noticed that there were no annunciators and recorders were
19 frozen. And they were trying to decide what indicators they
20 should be using to figure out the plant status.

21 At first I didn't realize that the unit had
22 scrambled. I thought it was just a power problem for the
23 control room. But, again, I'm not familiar with all the
24 electrical distribution systems inside the plant, so.

25 As soon as they realized that a transient was



1 occurring, they took the mode switches shutdown, I heard
2 that statement by the SSS. Then they began their -- from
3 whatever indications they had -- they began their post-
4 scram, they have certain procedures they follow for the
5 post-scram; and at that point I was just -- at that point
6 the SSS told me to dig out a procedure for -- we have a loss
7 of annunciator procedure, or it's a part of an off-normal to
8 the procedure. I went and grabbed it and it's in the
9 process computer procedure -- I went and grabbed that and I
10 was skimming through that and I realized that wasn't going
11 to help us that much because that was just for loss of
12 annunciators. Like part of it was to notify the plant
13 manager and things like that and placed extra operators on
14 the panels which is already occurring.

15 So, at that point, I was still reading through it
16 and trying to keep attention with the SSS if he wanted me to
17 do anything else. The SEPC was following -- or keep an eye
18 on him in case he need some help. He went and got EPP-2
19 attachment describing what -- how to classify the event.
20 You know, when he got that we discussed -- he immediately
21 pulled it out and went to the loss of annunciator section
22 and we were discussing whether it should be -- at that point
23 -- an alert or a site area emergency. And it was pretty
24 apparent that we had plant transient, so that made it a site
25 area emergency.

11



1 He continued on and talked with the SSS and he
2 concurred, I guess, and they declared it, classified it, and
3 at that point, I guess previous to that, they had called --
4 Unit One, I guess, to make the announcement because the RAD
5 waste operator came up to act as a communication aid and
6 they started their notifications and at that point I was
7 still -- oh, I'm not sure exactly what I was doing, I think
8 the loss of annunciator procedure -- that's right, was
9 talking about different panels in the relay room to check
10 for loss of power.

11 At that point I figured well, I'll go down and
12 check them and I noticed as soon as I got out of the control
13 room the stairways were dark and I guess the emergency
14 lighting was not on at that point. I was going to go back
15 and get a flashlight and then I got called to do something
16 else. I believe at that point the SSS told me to notify the
17 -- try to get the computer back up, process computers, so, I
18 went and figured out who was on call, the computer expert.
19 I called down to his office and I got -- I think the guy on
20 call was Dave Skinner, but I believe I got Don Kent. And he
21 was -- I told him the problem and he immediately went over
22 to the computer room and started working on the computers.

23 At that point, also, I notified the reactor
24 engineer. I had to call him on his car phone because he was
25 already in transit to work.

11



1 MR. JORDAN: Do you have any idea how long we are
2 into this thing? Is it a half hour or are we over an hour?

3 MR. TUTTLE: Probably a half hour.

4 MR. JORDAN: Do you know if the power is back yet?

5 MR. TUTTLE: No. That's true. I didn't call the
6 computer man until the power was back, until we got the
7 annunciators back.

8 MR. JORDAN: Then you called the computer man?

9 MR. TUTTLE: The computer man.

10 MR. JORDAN: Okay.

11 MR. TUTTLE: And I believe I called the reactor
12 engineer after that, because we're on shift, we're
13 considered -- well they call us STA's, but we're not really
14 STA's. We're STA's in training, I guess you would consider
15 us. So we're responsible for notifying the reactor engineer
16 for any reactivity changes or anything like that.

17 And I notified him and he was already on his way
18 in. And also the SSS asked me to get in touch with INC and
19 make sure that INC was available and I believe at that point
20 there was already an INC person in the control room. I
21 don't know if he was the official representative, but he was
22 there and I was talking with him and asking him to get a
23 couple of technicians ready to assist in case the SSS
24 required it. So, essentially I was acting as maybe
25 assistant SEPC. And then I was just pretty much standing

11



1 back and after that and trying to stay out of the way, but
2 within ear shot of the SSS or the SEPC in case he needed
3 anything. The SEPC was already in the notifications and he
4 was also assisting other people and if they had needed any
5 other assistance I was here to help.

6 And after the SEPC, I'm not sure what time I took
7 over the SEPC duties, because I -- the off-going SEPC stayed
8 around for a while to write up his -- he had a -- we have a
9 RAP-6 procedure -- post-scrum review, he stayed around after
10 I relieved him -- it must have been about 9:00, eight or
11 nine, because he -- the off-going SEPC stayed.

12 MR. CONTE: Can you estimate what time you had a
13 turnover? You said eight or nine?

14 MR. TUTTLE: We had a turnover, but essentially I
15 was following him the whole time, so it was -- I just
16 grabbed the phone instead of him. At that point we were
17 just being used as communication aids.

18 MR. CONTE: So the previous SEPC was on between
19 eight and nine? Between eight and nine there was some kind
20 of turnover?

21 MR. TUTTLE: Right.

22 MR. JORDAN: I believe he stayed until after 9:00,
23 filled out his form and went home.

24 MR. CONTE: Do we want him to recount the rest of
25 the day, Mike?



1 MR. JORDAN: Yeah. If you can give me just an
2 idea of what -- what you did for the rest of the day then?

3 MR. TUTTLE: A lot of my time was tied up as I was
4 being used as the communication aid with the TSC. At that
5 point the TSC communication coordinator was calling me every
6 15 minutes for a plant status update. And that took about
7 five minutes or sometimes 10 minutes if he had questions.

8 We had essentially a foreman would run down all
9 the different status -- ECCS status or anything like that --
10 plant parameters, anything -- any changes. And that would
11 take a while. And if he had any questions from anybody at
12 the TSC I would take them and either give them to SSS or
13 Jerry Helker or somebody or who ever wanted the answer.
14 Either get the answer and tell the coordinator right away or
15 I would get an extension for him to call or whatever. And
16 when I wasn't answering the phones I was just either walking
17 -- at one point walking around panels to make sure nothing
18 changes so I can update it. Or, again, just trying to stay
19 out of the way; because there were so many people up there.

20 At one point I did notice the SRV tail piece
21 recorder temperature -- temperatures had changed and I
22 brought that to the attention of the SSS and the -- Jerry
23 Helker, I was also showing him that. And at that point
24 that's when we determined that two SRV's had lifted, but
25 that was, again, later in the morning before I noticed that.

11



1 MR. JORDAN: Was that after your turnover?

2 MR. TUTTLE: Yes, after the turnover.

3 MR. JORDAN: Okay.

4 MR. TUTTLE: I would say probably not until about
5 10 o'clock in the morning.

6 MR. JORDAN: Okay.

7 MR. TUTTLE: Then, the rest of the day, up until I
8 was relieved at about 6 o'clock, I was on the phone pretty
9 much, answering questions and giving updates. Or, if the
10 SSS needed anything, I was kind of a gofer.

11 MR. JORDAN: While the power was off to the
12 annunciators, I take it, you were basically wandering around
13 and assisting the other SEPCs; is that correct?

14 MR. TUTTLE: Yes.

15 MR. JORDAN: Were there any parameters or things
16 that you observed that were either normal, out of normal, or
17 whatever, that you assisted in communicating to the crews
18 that they didn't know about? You mentioned the tailpipe
19 temperatures. Were there any other things?

20 MR. TUTTLE: Not at that point. At that point I
21 had my nose in that loss-of-annunciator. If I had seen
22 anything, I would have notified, but I didn't see anything
23 unusual at that point. I wasn't really walking down the
24 panels looking for indications, but I was --

25 MR. CONTE: Before that time period, you



1 mentioned in your run-down, "I didn't realize there was a
2 scram." Could you tell us what you heard in the discussions
3 among the operators about a scram. I'm really interested in
4 the time period when the lights flickered and before they
5 manually scrambled. Could you give me a sense of what they
6 said or what was the reaction?

7 MR. TUTTLE: Well, as soon as the lights
8 flickered, we moved out in the control room area, and we --
9 Al and I -- saw the annunciators out. The CSO was calling
10 to the SSS to get him out into the main control room. They
11 immediately walked down the boards. The ASSS went to the
12 back of the control room, I believe. At that point -- I
13 don't want to --

14 MR. CONTE: If you can't remember --

15 MR. TUTTLE: Yes, I can't remember for sure, but I
16 know, as soon as I said, can't determine the status, the SS
17 notified -- I think it was the CSO -- to take the mode
18 switch to shutdown. It was within, I'd say, at least a
19 minute.

20 MR. CONTE: The SSS said that he couldn't
21 determine the status of the plant, so he said to take the
22 mode switch to shutdown; is that correct?

23 MR. TUTTLE: He did not say, "I cannot determine
24 the status of the plant," but I believe he might have said,
25 "I have no indication of power." I believe -- well, I don't



1 want to say anything more than that.

2 MR. CONTE: Did you hear a recommendation from
3 anybody, I recommend manually scrambling? And who said
4 that?

5 MR. TUTTLE: I don't remember any recommendations.
6 I do remember the SSS saying, Take the mode switch to
7 shutdown.

8 MR. CONTE: Okay.

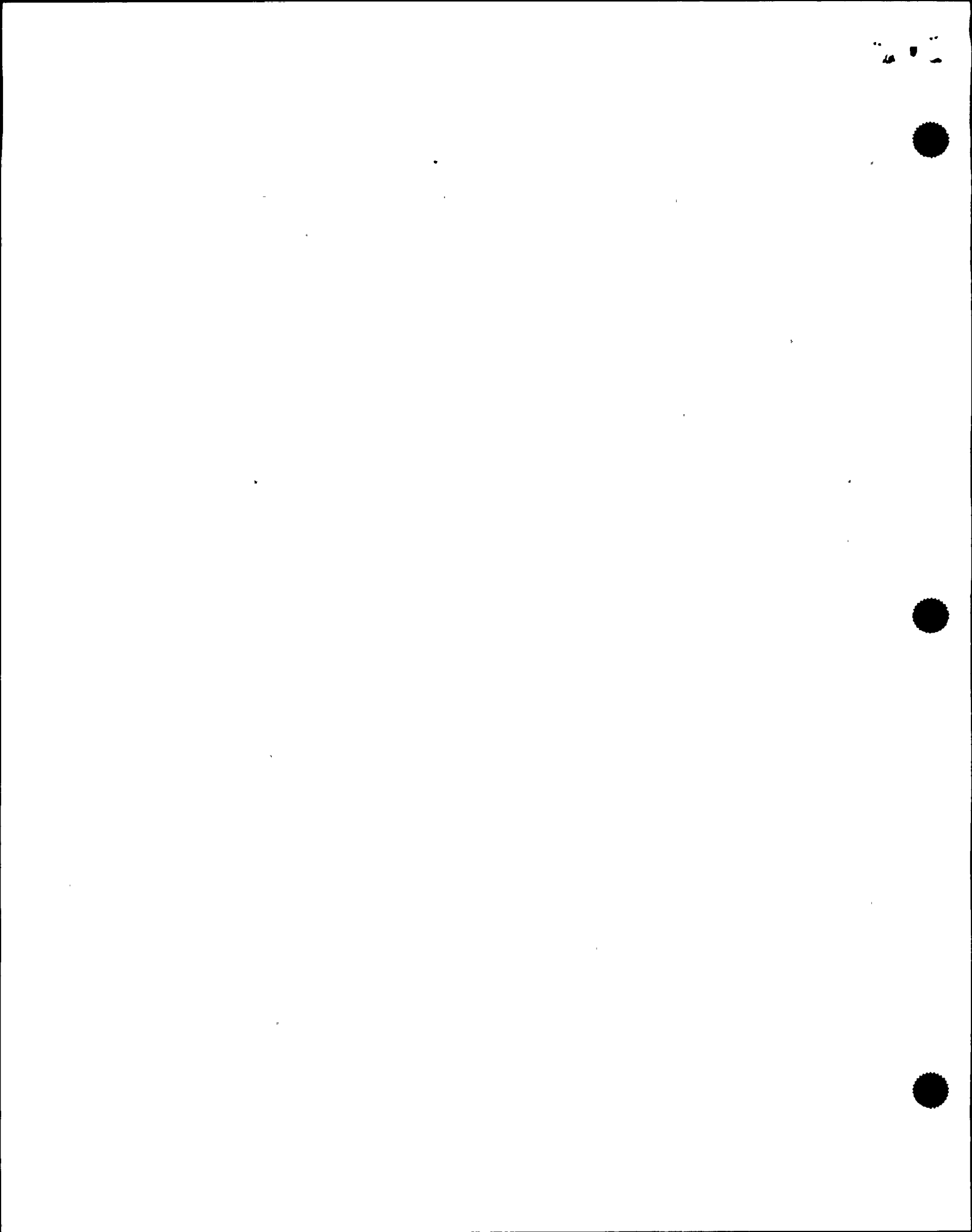
9 I have a question on the loss-of-annunciator
10 procedures. Is there anything before that?

11 MR. JORDAN: No.

12 MR. CONTE: Tell us a little more about the
13 usefulness of the loss-of-annunciator procedure. You
14 mentioned in your run-down that it didn't help much; it was
15 just for a loss of annunciators. Can you explain that a
16 little more?

17 MR. TUTTLE: I think it was meant for, if you just
18 had a power loss just to the annunciators and you still had
19 the process computer and other indications -- in other
20 words, just the loss of annunciators. It had steps in it,
21 like I said, to notify the plant manager and other people.
22 I believe it's because they would have to classify the event
23 as far as EPP-2.

24 It also tells to station certain people, bring
25 other operators on. I don't remember exactly; I haven't



1 looked at it since then.

2 It also lists the panels in the relay room where
3 the loss of power could occur. You go down there and check
4 different indications down there, to see if it's just a
5 breaker, I guess, or whatever.

6 MR. CONTE: Based on your knowledge of the plant
7 design, would you expect a reactor scram on just the loss of
8 annunciators only?

9 MR. TUTTLE: No, not to my knowledge.

10 MR. CONTE: That should not happen?

11 MR. TUTTLE: Not to my knowledge, no.

12 MR. CONTE: Can you tell me why that is so, based
13 on your knowledge? The loss of the annunciators or the
14 power supplies to the annunciators don't affect the reactor
15 protection system at all?

16 MR. TUTTLE: I believe, since everything is
17 redundant and we have divisional power and everything, I
18 would say that, if you lost power to the cabinet that
19 controls the annunciators, you could still have power to
20 everything else.

21 MR. CONTE: You mentioned that you have been in
22 training for an STA. Have you been exposed to any of this
23 in training, from the point of view of the system knowledge
24 of the non-safety UPS's and, perhaps, combating the
25 casualty of a loss of annunciator?



1 MR. TUTTLE: Specifically trained, no. We were
2 trained as far as the STA role, if you have the loss of
3 indication -- say our SPDS computer; we were trained where
4 to go to get the drywell information. That's another thing,
5 I guess, we were also doing: going to the back panels and
6 getting drywell information or getting all the parameters
7 that normally you need for the EOPs, from places other than
8 the computer.

9 MR. CONTE: That's specifically a lesson plan, or
10 is that like in the simulator?

11 MR. TUTTLE: In the simulator they'll say, All
12 right, get all these parameters without using the SPS
13 computer, because the SPS computer has a nice set-up of all
14 the parameters that you usually need for the EOPs.

15 MR. CONTE: When you did this training, you did it
16 with licensed operators? So would you say that licensed
17 operators know how to do this, also?

18 MR. TUTTLE: On our requal, yes. When I took my
19 cert class, it was just with other STAs in training or other
20 instructors, or whatever. During requal, I'm sure the
21 operators can handle that.

22 MR. CONTE: Okay.

23 MR. JORDAN: Do you train with the crews?

24 MR. TUTTLE: Now we do. Since we've been on
25 shift, we go through requal, and we're required to pass so



1 many things. We're required to go through requal and attend
2 all the sessions. Then, when they get into the simulator,
3 we're just used as SEPCs again, and we practice that. We're
4 not used as STAs in there yet.

5 MR. JORDAN: Are you assigned a shift for the
6 requal, or each time you go in are you in with a different
7 shift?

8 MR. TUTTLE: Right now we're in with a different
9 shift, because the main shifts are on six-shift rotation,
10 and the STAs or SEPCs are on a five-shift rotation; we don't
11 have enough STAs to cover six shifts yet. Every five weeks
12 we go into requal; every six weeks they go into requal; and
13 we don't match up well.

14 MR. CONTE: You mentioned that you left the
15 control room momentarily, and you noticed a stairwell dark.
16 Could you be specific for the record in terms of the
17 building and elevation or elevations that you noticed the
18 dark stairway?

19 MR. TUTTLE: Well, it was the back doors to the
20 control room, going down into the control building, so it
21 was elevation 306. The normal stairway lighting was out,
22 and there was no emergency lighting, also -- in the back
23 stairwells. I didn't go through the front stairwells going
24 to the elevators, so I do not know if that didn't have
25 lights.



1 MR. CONTE: Did you happen to notice if egress
2 lighting from the doors, like the exit signs, was lit or not
3 lit in the stairwells?

4 MR. TUTTLE: I didn't go into the stairwells. I
5 opened up the door, noticed there were no lights, so I just
6 shut the door and returned. I originally was going to look
7 for a flashlight, and then I got involved in something else.

8 MR. CONTE: Back on lighting, in the control room
9 you noticed the lights flicker. Did you happen to notice
10 emergency lighting in the control room come on?

11 MR. TUTTLE: I didn't notice it. It could have
12 been on and I just didn't see it.

13 MR. CONTE: Okay.

14 The flickering, how would you describe the
15 flickering? Was it black and then came back on real
16 immediately, or just kind of a blink?

17 MR. TUTTLE: No, it was quicker than that. It was
18 a blink. It was just once.

19 MR. CONTE: It was just once?

20 MR. TUTTLE: Yes. If I remember right, it was
21 just enough to tell that something switched.

22 MR. CONTE: Okay.

23 Mike, do you have anything? I'm up to the point
24 when, later in the day, they were returning the UPS to the
25 normal supply.



1 MR. JORDAN: You've got everything I've got.

2 MR. CONTE: Okay.

3 You say you were communicating with the TSC at the
4 time, for the rest of the day, mostly. How much involvement
5 -- How much do you know about the decision to return the
6 uninterrupted power supplies that had been put on the
7 emergency supplies back to normal? I think this occurred
8 somewhere around 10 or 11 o'clock.

9 MR. TUTTLE: I wasn't involved in the decision at
10 all, and I really don't know how it was made.

11 MR. CONTE: Did you hear in the control room any
12 operators object to transferring back to normal?

13 MR. TUTTLE: No, I didn't hear any.

14 MR. CONTE: You just don't remember anything.

15 MR. TUTTLE: No.

16 MR. CONTE: That's fine. That's okay. Okay.

17 The SRV tailpiece temperature, were you able to
18 examine the temperature record back to the time of the
19 event? Was that instrument available in the whole event?

20 MR. TUTTLE: No. It failed. The only reason we
21 could tell us, some of the tailpiece temperatures were
22 reading high, anyway, and part of our job before was working
23 with annunciators, and that was causing a nuisance
24 annunciator, so I know some of them are reading high anyway.
25 When the power occurred, the recorder stopped. When the



1 power came back, you could see that the high SRVs, since
2 they were reduced in power at that point -- probably by the
3 time we even saw it were way down in power -- in pressure --
4 you could see two temperatures that were trending down from
5 above even the previous highest SRVs. And the previous
6 highest SRVs were reported lower than what they were
7 previously, so we concluded that the two had probably
8 lifted.

9 MR. CONTE: Is there any way of knowing SRV
10 opening with a loss of annunciators? Are there positive
11 indications of valve position on the SRVs?

12 MR. TUTTLE: There are indications. I'm not sure
13 how they would be affected. I don't have that much
14 knowledge yet. There are indications lights; there's an
15 acoustic monitor; and then I believe there are lights that
16 work off the SOVs, other lights.

17 MR. CONTE: Acoustics monitor? Is that just an
18 annunciator? If so then you wouldn't have seen it?

19 MR. TUTTLE: Oh, maybe that is an annunciator,
20 right. It could have been just an annunciator.

21 MR. CONTE: Is there a way you can tap in to hear
22 the acoustic monitor?

23 MR. TUTTLE: I believe downstairs you can tap into
24 it, but I'm not familiar with the procedure.

25 MR. CONTE: In other words, there isn't a monitor

200



1 in the control room, so you can turn up the volume?

2 MR. TUTTLE: Not to my knowledge.

3 MR. CONTE: You think it's downstairs in the relay
4 room?

5 MR. TUTTLE: I think you have to go down in the
6 relay room to physically listen to it.

7 MR. JORDAN: If the acoustic monitor alarms, or
8 initiates the alarm condition, recognizing that the panel in
9 the front wouldn't alarm, does it stay in the alarm
10 condition? Do you know if they worked?

11 MR. TUTTLE: When the annunciators came back, I
12 didn't notice it. I'm not even sure if it would, in other
13 words, acknowledge itself and defeat it. I would say it's
14 probably not locked in, but I don't have that much
15 knowledge.

16 MR. JORDAN: Okay.

17 MR. CONTE: Are you aware of what actions need to
18 be taken if an SRV lifts on a post-trip response?

19 MR. TUTTLE: I do now, but I didn't at that point.

20 MR. CONTE: What are they? Could you summarize
21 them for us?

22 MR. TUTTLE: Well, I believe you have to do a
23 surveillance on the vacuum breakers and the drywell. That's
24 as far as I know right now.

25 MR. CONTE: That concludes my questioning. Mike,

..
..
..



1 can you think of anything else?

2 MR. JORDAN: No, I can't think of anything else.

3 I think that concludes the interview, then.

4 MR. CONTE: Thank you, Tom.

5 MR. TUTTLE: Okay.

6 [Whereupon, at 10:00 a.m., the taking of the
7 interview was 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:

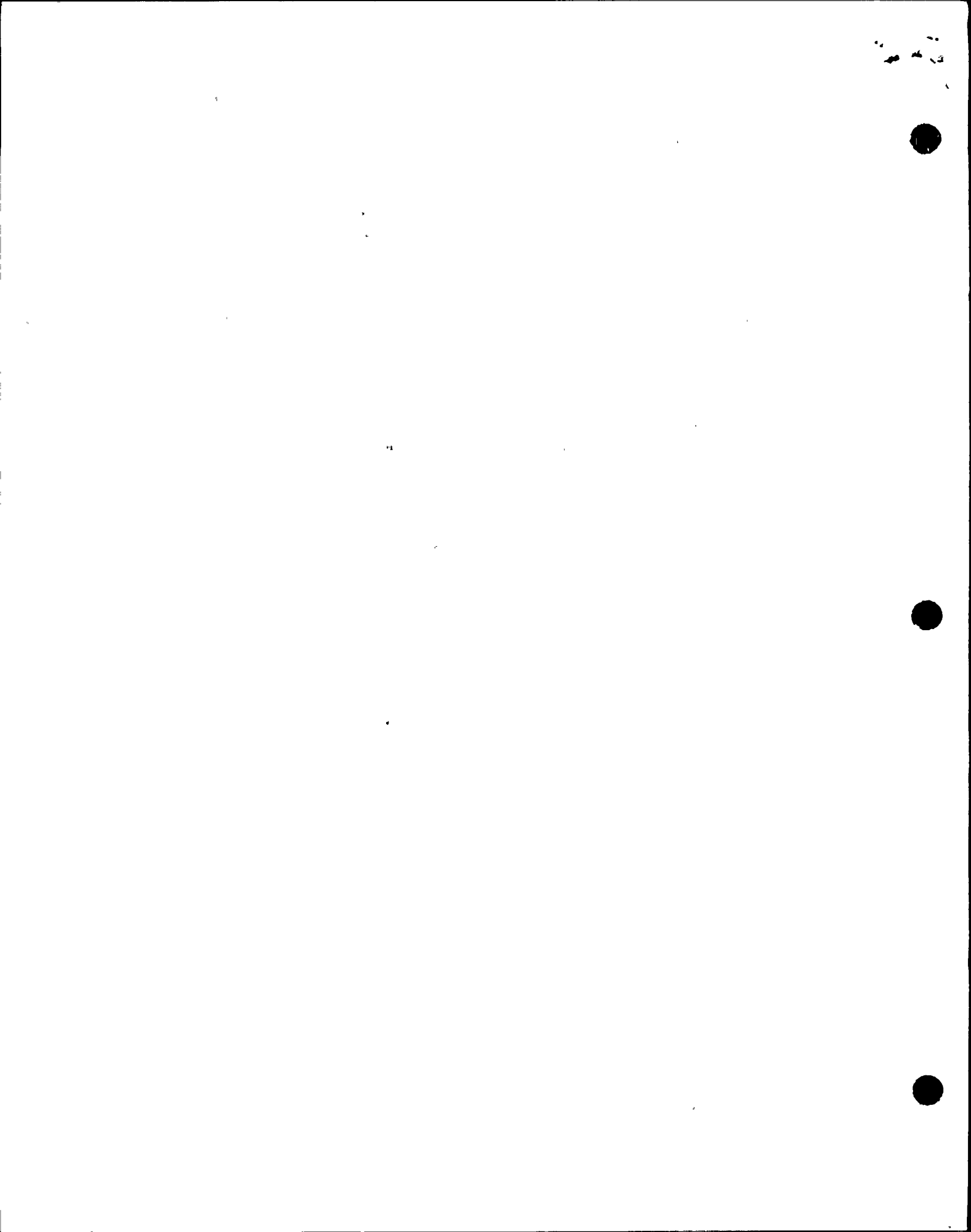
NAME OF PROCEEDING: Int. of TOM TUTTLE

DOCKET NUMBER:

PLACE OF PROCEEDING: Scriba, N.Y.

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.

Jon Hundley
JON HUNDLEY
Official Reporter
Ann Riley & Associates, Ltd.



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07-88A-91

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission
Incident Investigation Team

Title: Nine Mile Point Nuclear Power Plant
Interview of: TOM TUTTLE

Docket No.

LOCATION: Scriba, New York

DATE: Tuesday, August 20, 1991

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ADDENDUM TO INTERVIEW OF Tom Tuttle / SIPC
(Name/Position)

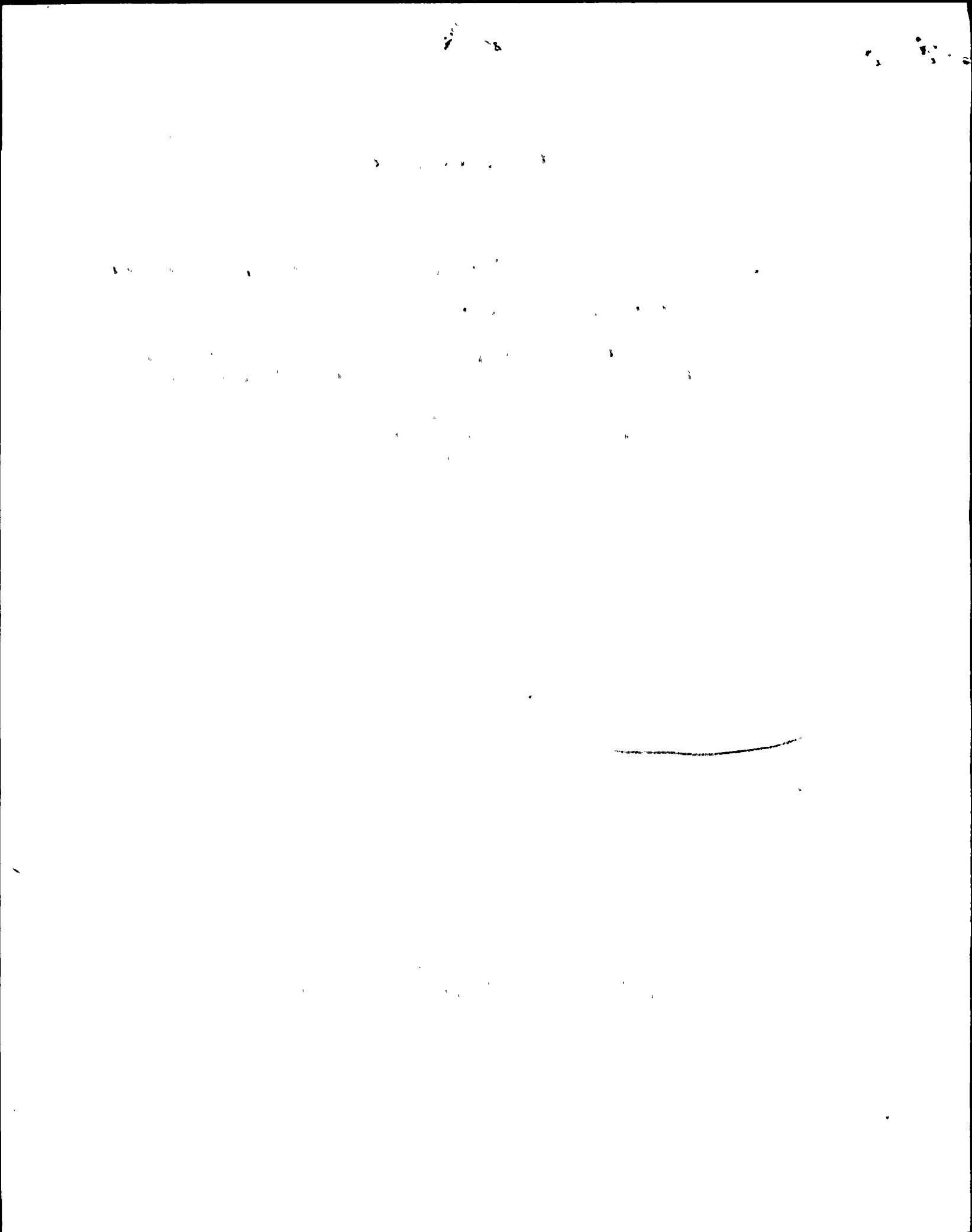
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Page 1 of 1 Signature Thomas Tuttle Date 8/28/91



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
INCIDENT INVESTIGATION TEAM

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Interview of :
TOM TUTTLE :
(Closed) :

Conference Room B
Administration Building
Nine Mile Point Nuclear
Power Plant, Unit Two
Lake Road
Scriba, New York 13093
Tuesday, August 20, 1991

The interview commenced, pursuant to notice,
at 9:30 a.m.

PRESENT FOR THE IIT:
Michael Jordan, NRC
Rich Conte, NRC

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P R O C E E D I N G S

[9:30 a.m.]

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3 MR. JORDAN: We're at Nine Mile Point, Unit Two,
4 it's August the 20th, 1991, at approximately 9:30 in the
5 morning. We're here to cover an event of a transient that
6 occurred on August 13th, 1991, and my name is Michael Jordan
7 and I'm leading the interview with Tom Tuttle.

8 MR. CONTE: My name is Richard Conte, I'm section
9 chief from Region One.

10 MR. TUTTLE: My name is Tom Tuttle, who is the
11 oncoming ESP or SEPC, I guess is what we call them.

12 MR. JORDAN: Okay. Tom, why don't you just give
13 us an idea of what your background is and your position
14 that you held here at Nine Mile.

15 MR. TUTTLE: I'm a kind of relative new employee
16 for Nine Mile. I joined last summer and immediately went
17 into a certification classes, SRO certification class, so
18 I'm kind of a rookie and we're trained as -- to be STA's,
19 eventually. I'm on shift technical advisor's.

20 I have a strong nuclear background, I actually
21 used to work for Westinghouse for about 10 years for steam
22 turbines and generators and I have a lot of balance of plant
23 experience, but as far as nuclear details, I'm relatively
24 new.

25 MR. JORDAN: Okay.



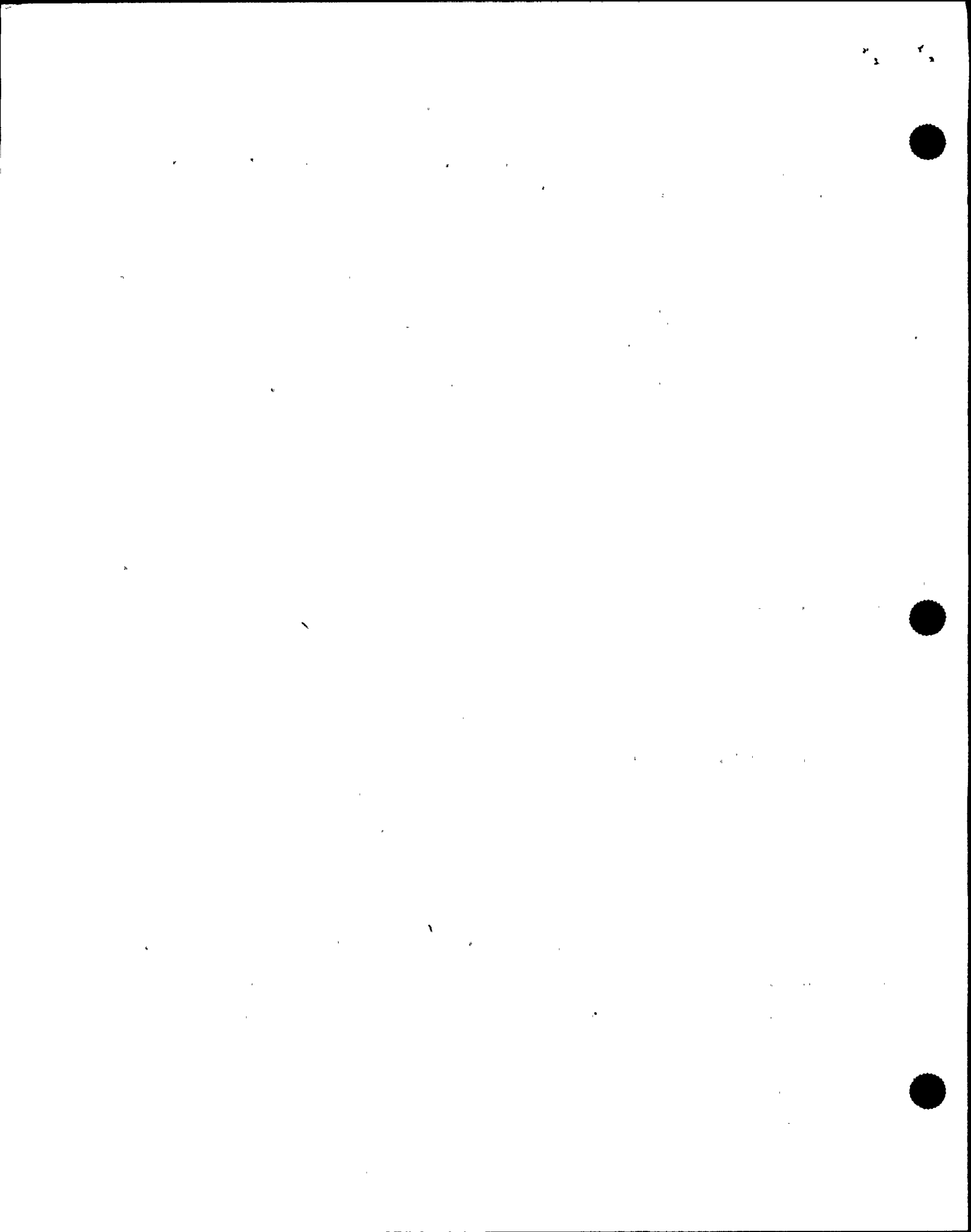
1 MR. TUTTLE: So, that's why I don't have a lot of
2 plant experience, and I may not be able to give you a lot of
3 detailed information.

4 MR. JORDAN: Okay. Why don't you start from what
5 you were doing just prior to the event and then walk us
6 through what you saw, what you heard, what you observed,
7 what activities you were responsible for during the event
8 and what you did.

9 MR. TUTTLE: Okay. My shift started at 6:30 so I
10 had come in at quarter of six to relieve the SEPC who was on
11 shift, Al Denny. We had just started talking and started
12 our turnover when the lights -- we're not directly in the
13 main control room, we're off to the side at a desk area off
14 to the side, and I noticed the lights flickered. At that
15 time Al and I went out into the main control room area and
16 we noticed all the annunciator lights were out; and we
17 talked with Mark Davis and the SSS immediately came out and
18 noticed that there were no annunciators and recorders were
19 frozen. And they were trying to decide what indicators they
20 should be using to figure out the plant status.

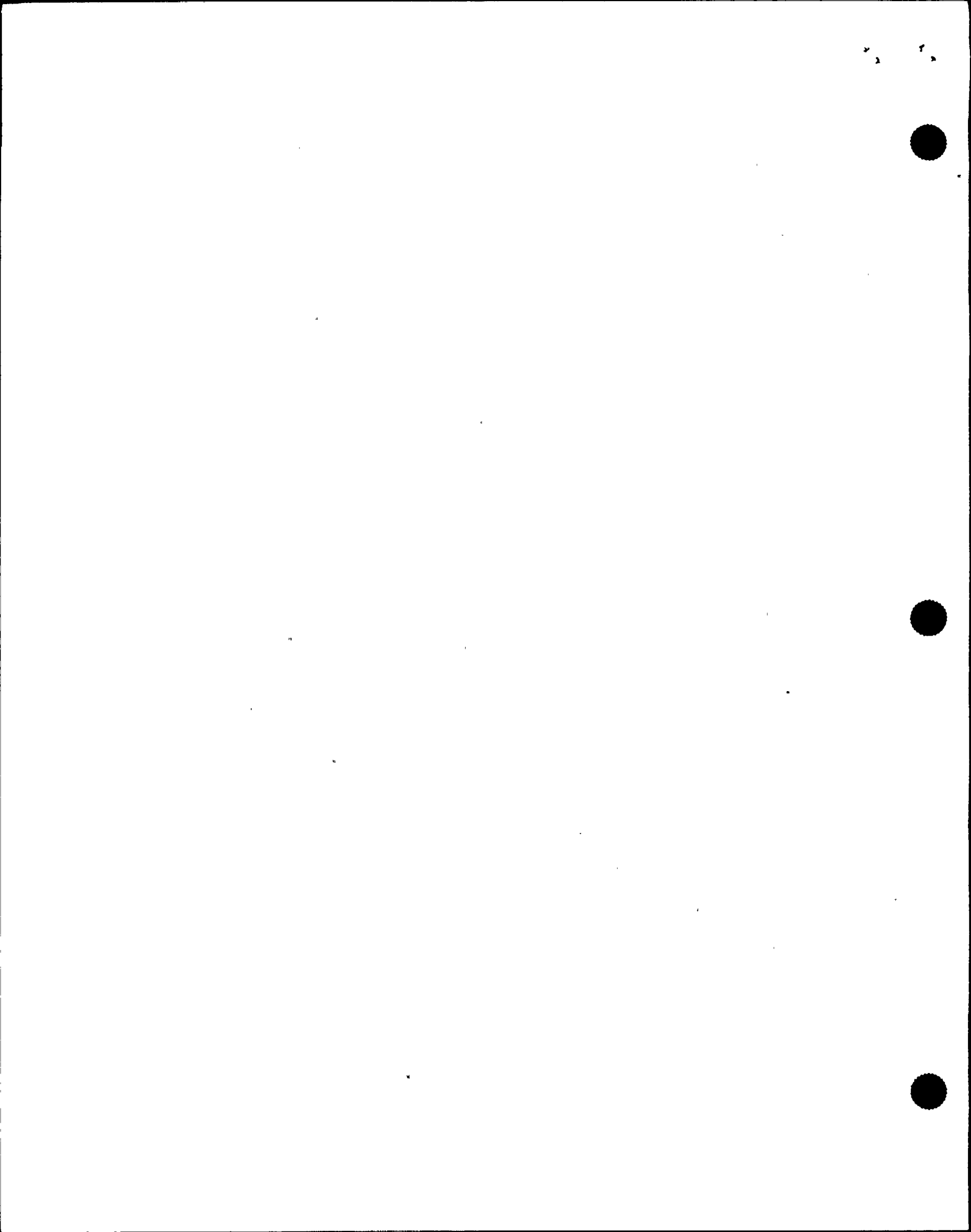
21 At first I didn't realize that the unit had
22 scrambled. I thought it was just a power problem for the
23 control room. But, again, I'm not familiar with all the
24 electrical distribution systems inside the plant, so.

25 As soon as they realized that a transient was



1 occurring, they took the mode switches shutdown, I heard
2 that statement by the SSS. Then they began their -- from
3 whatever indications they had -- they began their post-
4 scram, they have certain procedures they follow for the
5 post-scram; and at that point I was just -- at that point
6 the SSS told me to dig out a procedure for -- we have a loss
7 of annunciator procedure, or it's a part of an off-normal to
8 the procedure. I went and grabbed it and it's in the
9 process computer procedure -- I went and grabbed that and I
10 was skimming through that and I realized that wasn't going
11 to help us that much because that was just for loss of
12 annunciators. Like part of it was to notify the plant
13 manager and things like that and placed extra operators on
14 the panels which is already occurring.

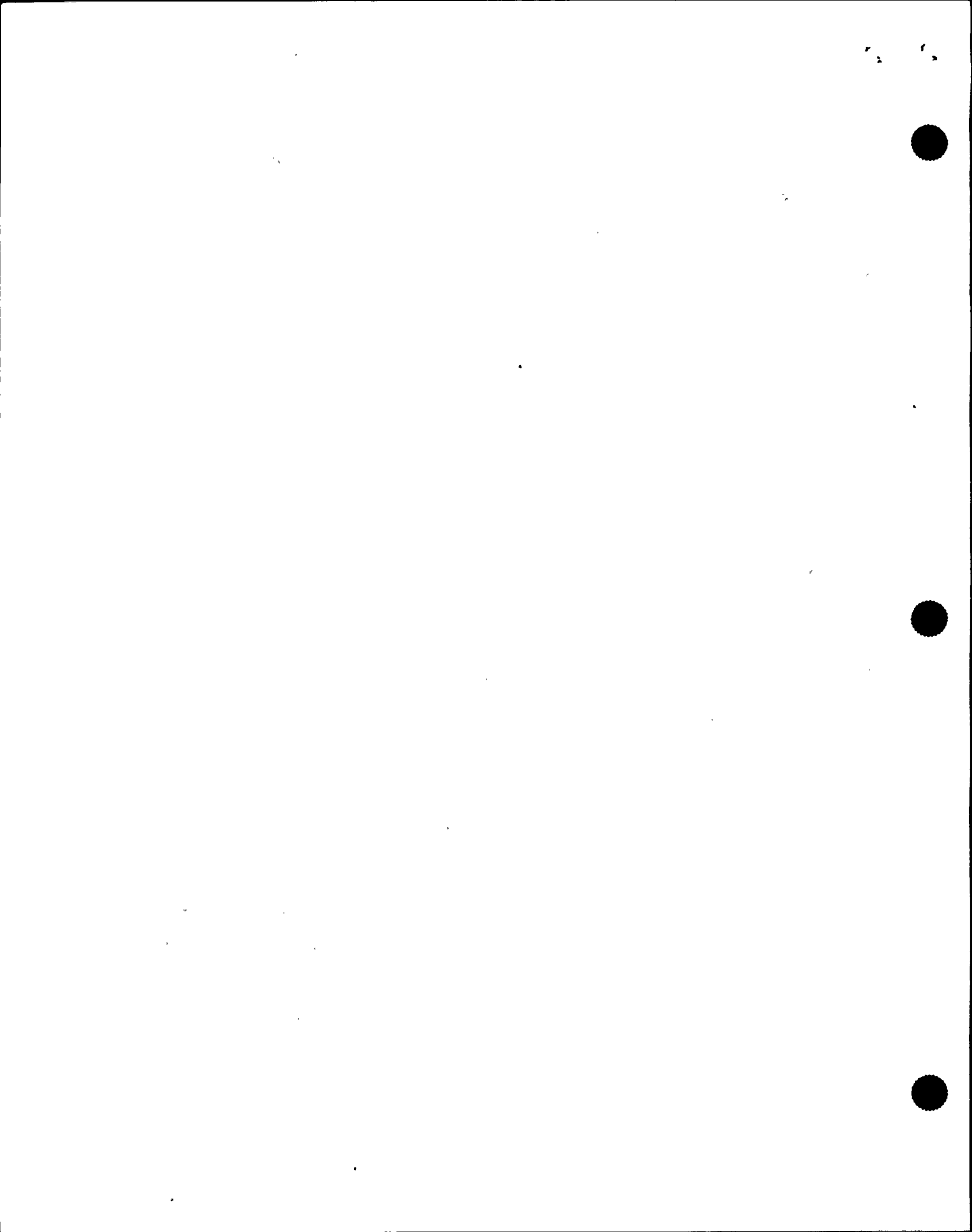
15 So, at that point, I was still reading through it
16 and trying to keep attention with the SSS if he wanted me to
17 do anything else. The SEPC was following -- or keep an eye
18 on him in case he need some help. He went and got EPP-2
19 attachment describing what -- how to classify the event.
20 You know, when he got that we discussed -- he immediately
21 pulled it out and went to the loss of annunciator section
22 and we were discussing whether it should be -- at that point
23 -- an alert or a site area emergency. And it was pretty
24 apparent that we had plant transient, so that made it a site
25 area emergency.



1 He continued on and talked with the SSS and he
2 concurred, I guess, and they declared it, classified it, and
3 at that point, I guess previous to that, they had called --
4 Unit One, I guess, to make the announcement because the RAD
5 waste operator came up to act as a communication aid and
6 they started their notifications and at that point I was
7 still -- oh, I'm not sure exactly what I was doing, I think
8 the loss of annunciator procedure -- that's right, was
9 talking about different panels in the relay room to check
10 for loss of power.

11 At that point I figured well, I'll go down and
12 check them and I noticed as soon as I got out of the control
13 room the stairways were dark and I guess the emergency
14 lighting was not on at that point. I was going to go back
15 and get a flashlight and then I got called to do something
16 else. I believe at that point the SSS told me to notify the
17 -- try to get the computer back up, process computers, so, I
18 went and figured out who was on call, the computer expert.
19 I called down to his office and I got -- I think the guy on
20 call was Dave Skinner, but I believe I got Don Kent. And he
21 was -- I told him the problem and he immediately went over
22 to the computer room and started working on the computers.

23 At that point, also, I notified the reactor
24 engineer. I had to call him on his car phone because he was
25 already in transit to work.



1 MR. JORDAN: Do you have any idea how long we are
2 into this thing? Is it a half hour or are we over an hour?

3 MR. TUTTLE: Probably a half hour.

4 MR. JORDAN: Do you know if the power is back yet?

5 MR. TUTTLE: No. That's true. I didn't call the
6 computer man until the power was back, until we got the
7 annunciators back.

8 MR. JORDAN: Then you called the computer man?

9 MR. TUTTLE: The computer man.

10 MR. JORDAN: Okay.

11 MR. TUTTLE: And I believe I called the reactor
12 engineer after that, because we're on shift, we're
13 considered -- well they call us STA's, but we're not really
14 STA's. We're STA's in training, I guess you would consider
15 us. So we're responsible for notifying the reactor engineer
16 for any reactivity changes or anything like that.

17 And I notified him and he was already on his way
18 in. And also the SSS asked me to get in touch with INC and
19 make sure that INC was available and I believe at that point
20 there was already an INC person in the control room. I
21 don't know if he was the official representative, but he was
22 there and I was talking with him and asking him to get a
23 couple of technicians ready to assist in case the SSS
24 required it. So, essentially I was acting as maybe
25 assistant SEPC. And then I was just pretty much standing



1 back and after that and trying to stay out of the way, but
2 within ear shot of the SSS or the SEPC in case he needed
3 anything. The SEPC was already in the notifications and he
4 was also assisting other people and if they had needed any
5 other assistance I was here to help.

6 And after the SEPC, I'm not sure what time I took
7 over the SEPC duties, because I -- the off-going SEPC stayed
8 around for a while to write up his -- he had a -- we have a
9 RAP-6 procedure -- post-scrum review, he stayed around after
10 I relieved him -- it must have been about 9:00, eight or
11 nine, because he -- the off-going SEPC stayed.

12 MR. CONTE: Can you estimate what time you had a
13 turnover? You said eight or nine?

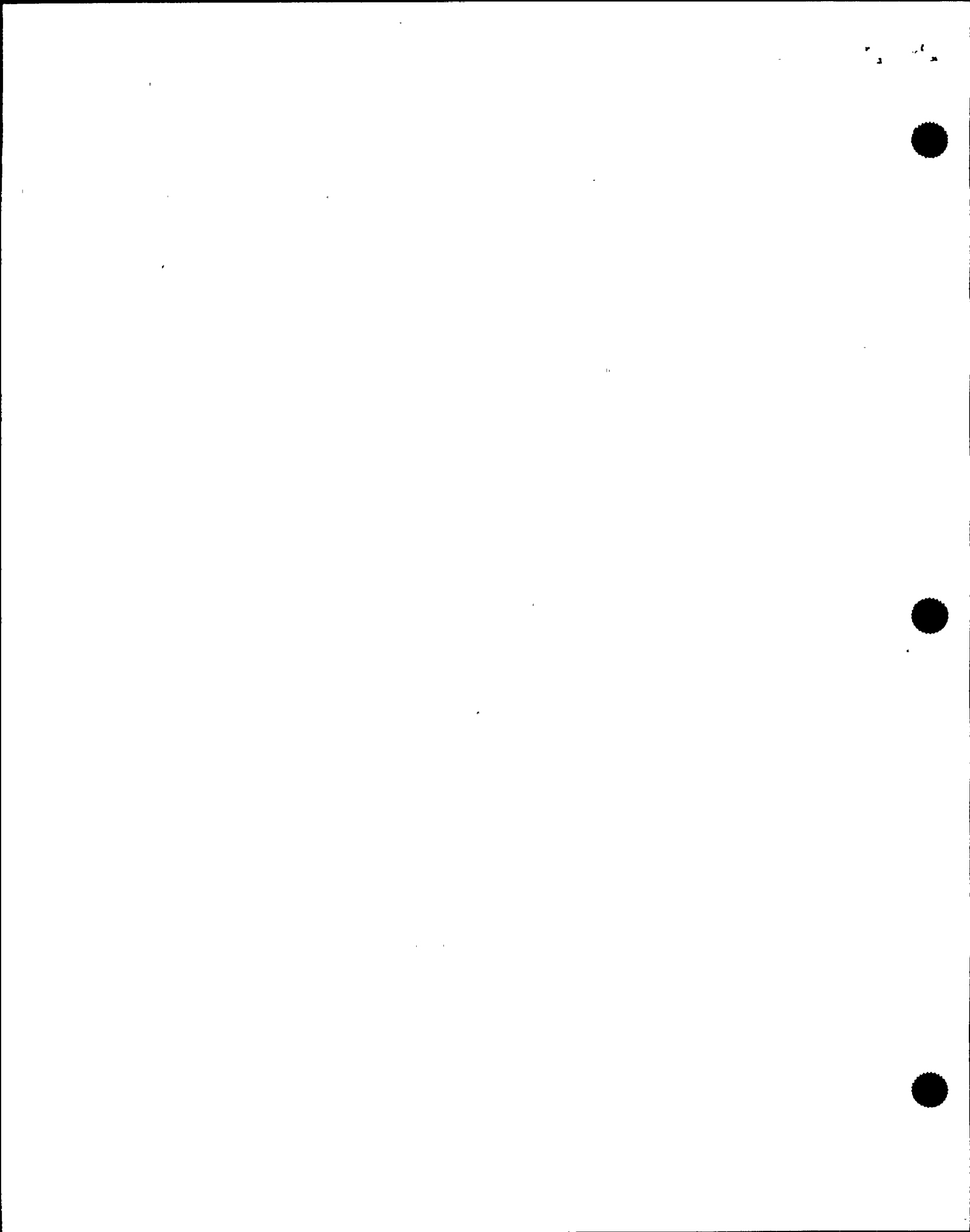
14 MR. TUTTLE: We had a turnover, but essentially I
15 was following him the whole time, so it was -- I just
16 grabbed the phone instead of him. At that point we were
17 just being used as communication aids.

18 MR. CONTE: So the previous SEPC was on between
19 eight and nine? Between eight and nine there was some kind
20 of turnover?

21 MR. TUTTLE: Right.

22 MR. JORDAN: I believe he stayed until after 9:00,
23 filled out his form and went home.

24 MR. CONTE: Do we want him to recount the rest of
25 the day, Mike?

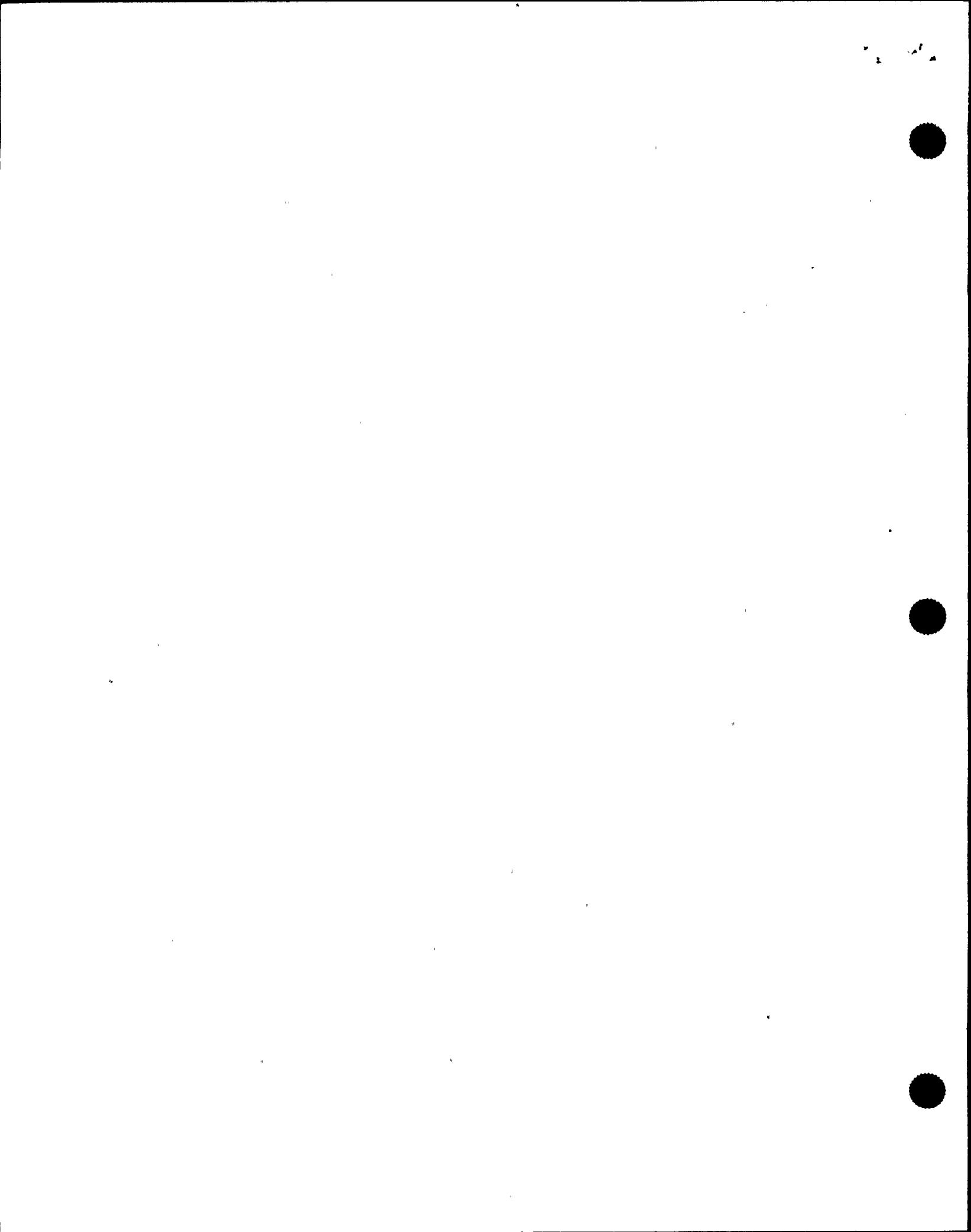


1 MR. JORDAN: Yeah. If you can give me just an
2 idea of what -- what you did for the rest of the day then?

3 MR. TUTTLE: A lot of my time was tied up as I was
4 being used as the communication aid with the TSC. At that
5 point the TSC communication coordinator was calling me every
6 15 minutes for a plant status update. And that took about
7 five minutes or sometimes 10 minutes if he had questions.

8 We had essentially a foreman would run down all
9 the different status -- ECCS status or anything like that --
10 plant parameters, anything -- any changes. And that would
11 take a while. And if he had any questions from anybody at
12 the TSC I would take them and either give them to SSS or
13 Jerry Helker or somebody or who ever wanted the answer.
14 Either get the answer and tell the coordinator right away or
15 I would get an extension for him to call or whatever. And
16 when I wasn't answering the phones I was just either walking
17 -- at one point walking around panels to make sure nothing
18 changes so I can update it. Or, again, just trying to stay
19 out of the way; because there were so many people up there.

20 At one point I did notice the SRV tail piece
21 recorder temperature -- temperatures had changed and I
22 brought that to the attention of the SSS and the -- Jerry
23 Helker, I was also showing him that. And at that point
24 that's when we determined that two SRV's had lifted, but
25 that was, again, later in the morning before I noticed that.



1 MR. JORDAN: Was that after your turnover?

2 MR. TUTTLE: Yes, after the turnover.

3 MR. JORDAN: Okay.

4 MR. TUTTLE: I would say probably not until about
5 10 o'clock in the morning.

6 MR. JORDAN: Okay.

7 MR. TUTTLE: Then, the rest of the day, up until I
8 was relieved at about 6 o'clock, I was on the phone pretty
9 much, answering questions and giving updates. Or, if the
10 SSS needed anything, I was kind of a gofer.

11 MR. JORDAN: While the power was off to the
12 annunciators, I take it, you were basically wandering around
13 and assisting the other SEPCs; is that correct?

14 MR. TUTTLE: Yes.

15 MR. JORDAN: Were there any parameters or things.
16 that you observed that were either normal, out of normal, or
17 whatever, that you assisted in communicating to the crews
18 that they didn't know about? You mentioned the tailpipe
19 temperatures. Were there any other things?

20 MR. TUTTLE: Not at that point. At that point I
21 had my nose in that loss-of-annunciator. If I had seen
22 anything, I would have notified, but I didn't see anything
23 unusual at that point. I wasn't really walking down the
24 panels looking for indications, but I was --

25 MR. CONTE: Before that time period, you



1 mentioned in your run-down, "I didn't realize there was a
2 scram." Could you tell us what you heard in the discussions
3 among the operators about a scram. I'm really interested in
4 the time period when the lights flickered and before they
5 manually scrambled. Could you give me a sense of what they
6 said or what was the reaction?

7 MR. TUTTLE: Well, as soon as the lights
8 flickered, we moved out in the control room area, and we --
9 Al and I -- saw the annunciators out. The CSO was calling
10 to the SSS to get him out into the main control room. They
11 immediately walked down the boards. The ASSS went to the
12 back of the control room, I believe. At that point -- I
13 don't want to --

14 MR. CONTE: If you can't remember --

15 MR. TUTTLE: Yes, I can't remember for sure, but I
16 know, as soon as I said, can't determine the status, the SS
17 notified -- I think it was the CSO -- to take the mode
18 switch to shutdown. It was within, I'd say, at least a
19 minute.

20 MR. CONTE: The SSS said that he couldn't
21 determine the status of the plant, so he said to take the
22 mode switch to shutdown; is that correct?

23 MR. TUTTLE: He did not say, "I cannot determine
24 the status of the plant," but I believe he might have said,
25 "I have no indication of power." I believe -- well, I don't



1 want to say anything more than that.

2 MR. CONTE: Did you hear a recommendation from
3 anybody, I recommend manually scrambling? And who said
4 that?

5 MR. TUTTLE: I don't remember any recommendations.
6 I do remember the SSS saying, Take the mode switch to
7 shutdown.

8 MR. CONTE: Okay.

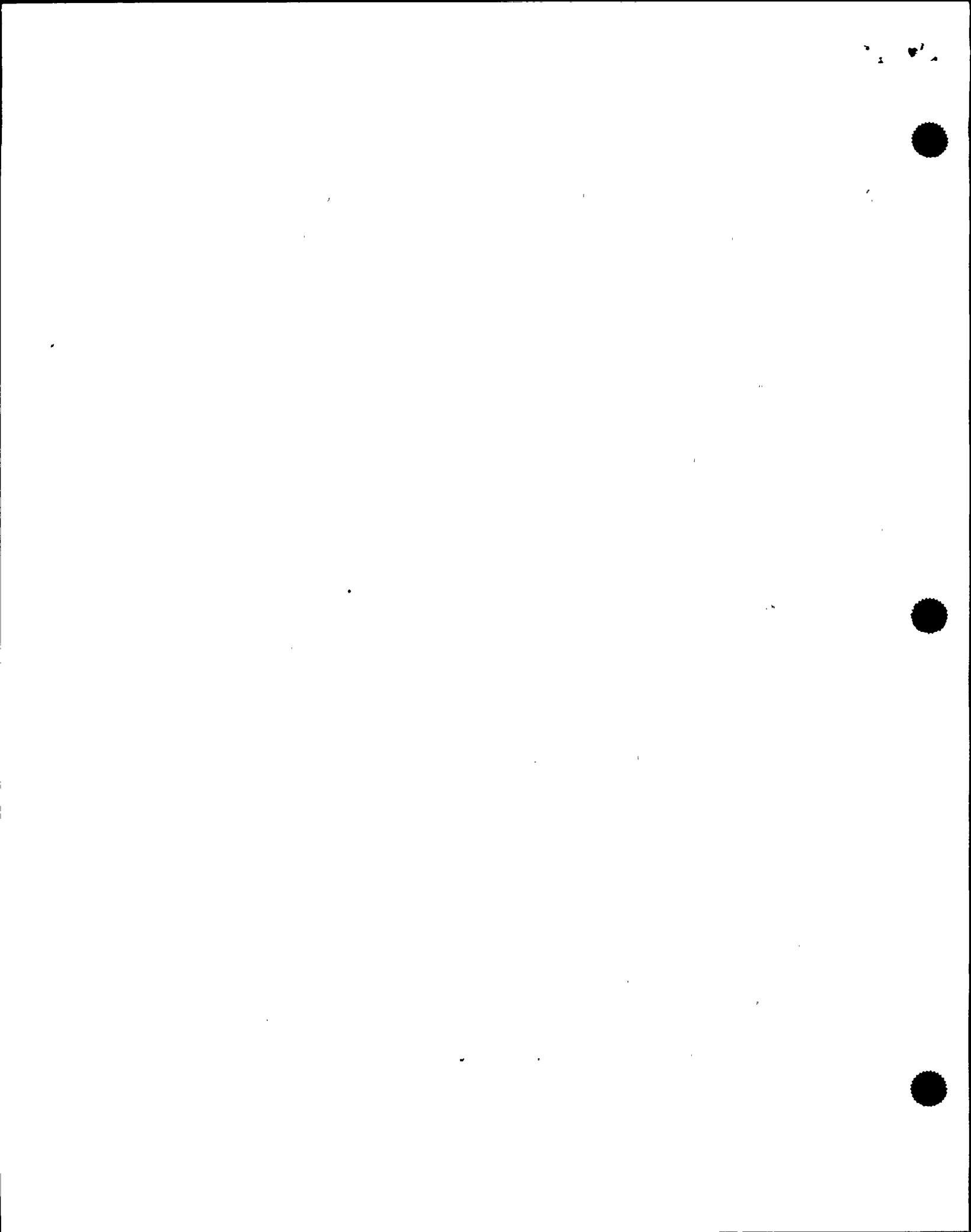
9 I have a question on the loss-of-annunciator
10 procedures. Is there anything before that?

11 MR. JORDAN: No.

12 MR. CONTE: Tell us a little more about the
13 usefulness of the loss-of-annunciator procedure. You
14 mentioned in your run-down that it didn't help much; it was
15 just for a loss of annunciators. Can you explain that a
16 little more?

17 MR. TUTTLE: I think it was meant for, if you just
18 had a power loss just to the annunciators and you still had
19 the process computer and other indications -- in other
20 words, just the loss of annunciators. It had steps in it,
21 like I said, to notify the plant manager and other people.
22 I believe it's because they would have to classify the event
23 as far as EPP-2.

24 It also tells to station certain people, bring
25 other operators on. I don't remember exactly; I haven't



1 looked at it since then.

2 It also lists the panels in the relay room where
3 the loss of power could occur. You go down there and check
4 different indications down there, to see if it's just a
5 breaker, I guess, or whatever.

6 MR. CONTE: Based on your knowledge of the plant
7 design, would you expect a reactor scram on just the loss of
8 annunciators only?

9 MR. TUTTLE: No, not to my knowledge.

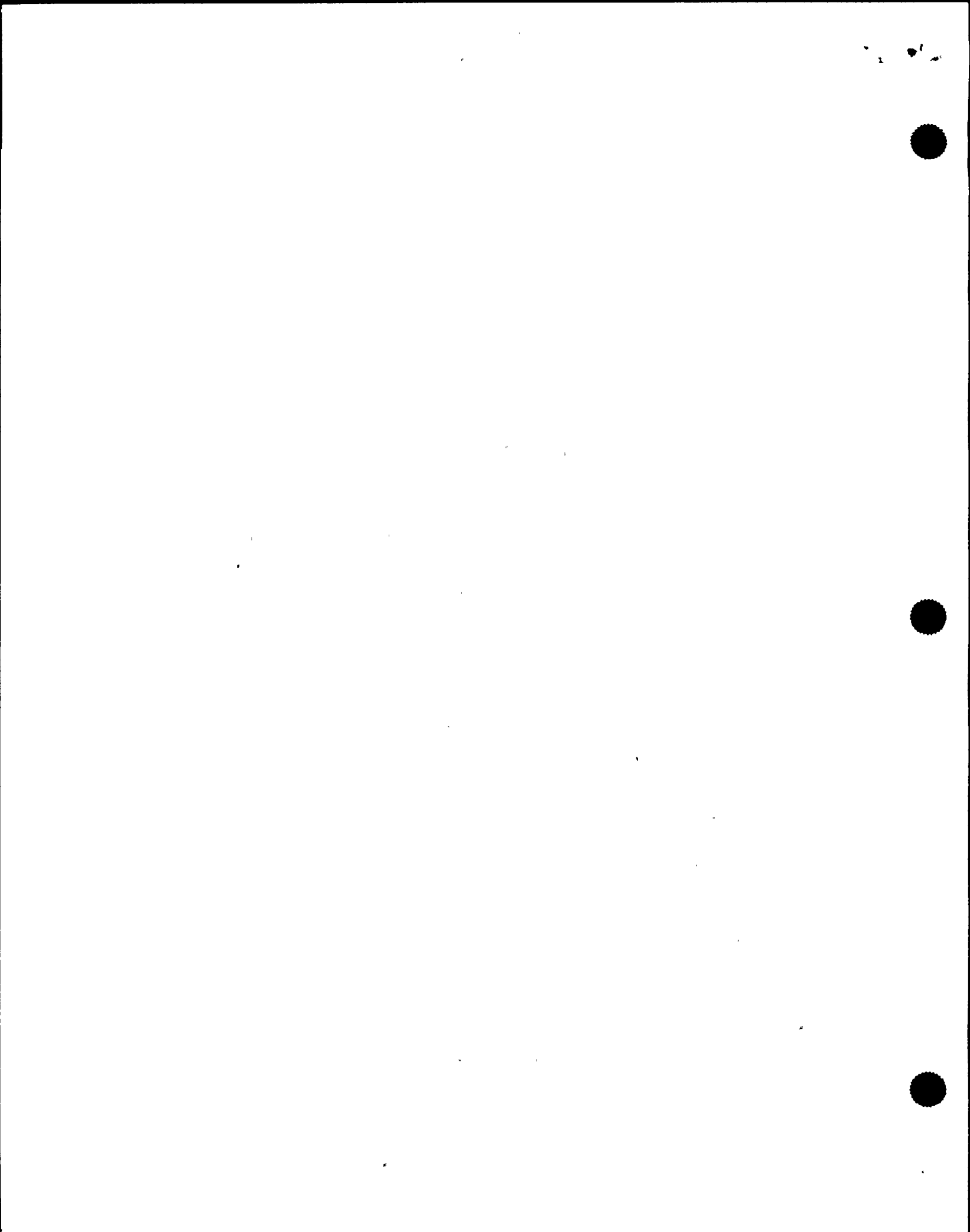
10 MR. CONTE: That should not happen?

11 MR. TUTTLE: Not to my knowledge, no.

12 MR. CONTE: Can you tell me why that is so, based
13 on your knowledge? The loss of the annunciators or the
14 power supplies to the annunciators don't affect the reactor
15 protection system at all?

16 MR. TUTTLE: I believe, since everything is
17 redundant and we have divisional power and everything, I
18 would say that, if you lost power to the cabinet that
19 controls the annunciators, you could still have power to
20 everything else.

21 MR. CONTE: You mentioned that you have been in
22 training for an STA. Have you been exposed to any of this
23 in training, from the point of view of the system knowledge
24 of the non-safety UPS's and, perhaps, combating the
25 casualty of a loss of annunciator?



1 MR. TUTTLE: Specifically trained, no. We were
2 trained as far as the STA role, if you have the loss of
3 indication -- say our SPDS computer; we were trained where
4 to go to get the drywell information. That's another thing,
5 I guess, we were also doing: going to the back panels and
6 getting drywell information or getting all the parameters
7 that normally you need for the EOPs, from places other than
8 the computer.

9 MR. CONTE: That's specifically a lesson plan, or
10 is that like in the simulator?

11 MR. TUTTLE: In the simulator they'll say, All
12 right, get all these parameters without using the SPS
13 computer, because the SPS computer has a nice set-up of all
14 the parameters that you usually need for the EOPs.

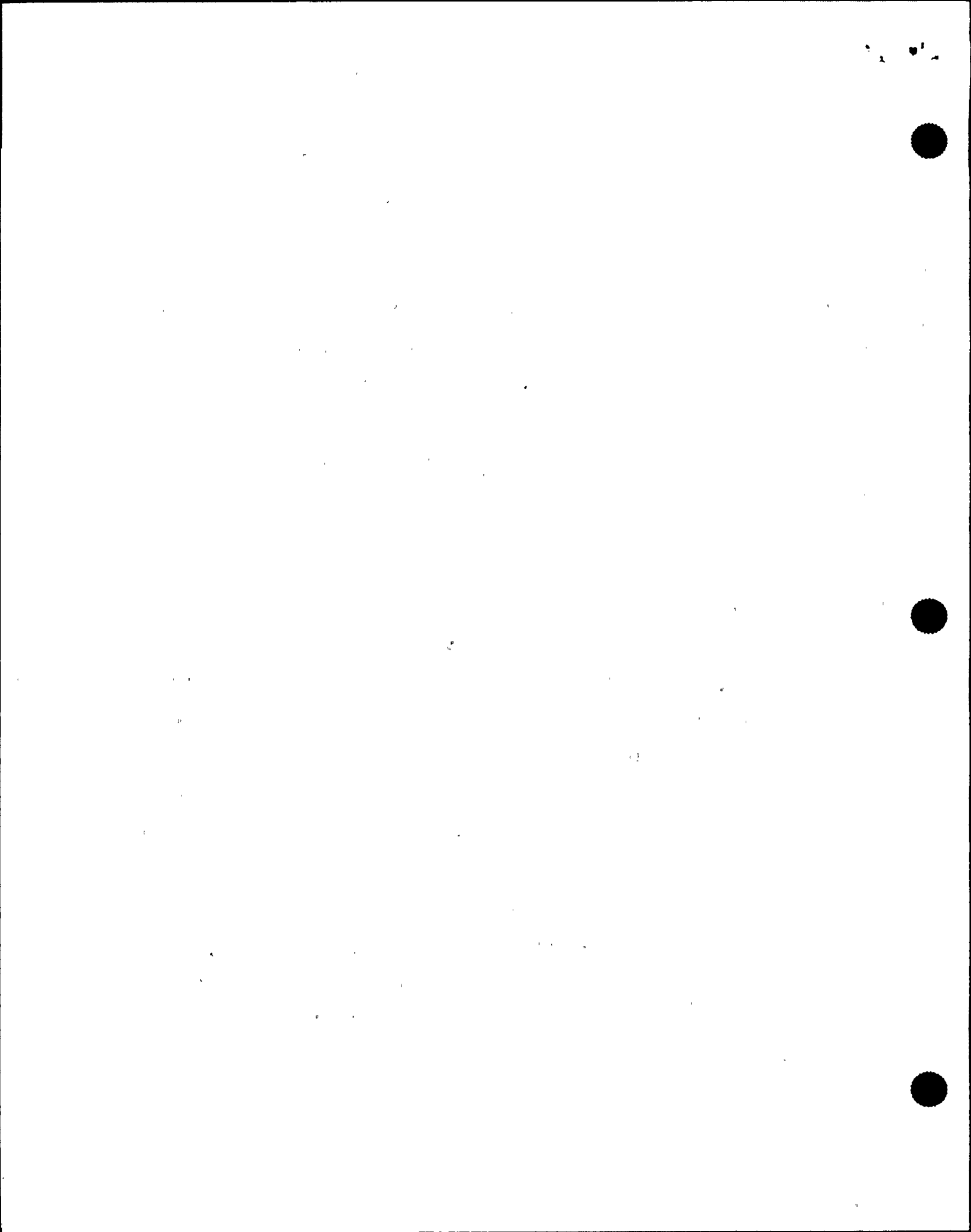
15 MR. CONTE: When you did this training, you did it
16 with licensed operators? So would you say that licensed
17 operators know how to do this, also?

18 MR. TUTTLE: On our requal, yes. When I took my
19 cert class, it was just with other STAs in training or other
20 instructors, or whatever. During requal, I'm sure the
21 operators can handle that.

22 MR. CONTE: Okay.

23 MR. JORDAN: Do you train with the crews?

24 MR. TUTTLE: Now we do. Since we've been on
25 shift, we go through requal, and we're required to pass so



1 many things. We're required to go through requal and attend
2 all the sessions. Then, when they get into the simulator,
3 we're just used as SEPCs again, and we practice that. We're
4 not used as STAs in there yet.

5 MR. JORDAN: Are you assigned a shift for the
6 requal, or each time you go in are you in with a different
7 shift?

8 MR. TUTTLE: Right now we're in with a different
9 shift, because the main shifts are on six-shift rotation,
10 and the STAs or SEPCs are on a five-shift rotation; we don't
11 have enough STAs to cover six shifts yet. Every five weeks
12 we go into requal; every six weeks they go into requal; and
13 we don't match up well.

14 MR. CONTE: You mentioned that you left the
15 control room momentarily, and you noticed a stairwell dark.
16 Could you be specific for the record in terms of the
17 building and elevation or elevations that you noticed the
18 dark stairway?

19 MR. TUTTLE: Well, it was the back doors to the
20 control room, going down into the control building, so it
21 was elevation 306. The normal stairway lighting was out,
22 and there was no emergency lighting, also -- in the back
23 stairwells. I didn't go through the front stairwells going
24 to the elevators, so I do not know if that didn't have
25 lights.



1 MR. CONTE: Did you happen to notice if egress
2 lighting from the doors, like the exit signs, was lit or not
3 lit in the stairwells?

4 MR. TUTTLE: I didn't go into the stairwells. I
5 opened up the door, noticed there were no lights, so I just
6 shut the door and returned. I originally was going to look
7 for a flashlight, and then I got involved in something else.

8 MR. CONTE: Back on lighting, in the control room
9 you noticed the lights flicker. Did you happen to notice
10 emergency lighting in the control room come on?

11 MR. TUTTLE: I didn't notice it. It could have
12 been on and I just didn't see it.

13 MR. CONTE: Okay.

14 The flickering, how would you describe the
15 flickering? Was it black and then came back on real
16 immediately, or just kind of a blink?

17 MR. TUTTLE: No, it was quicker than that. It was
18 a blink. It was just once.

19 MR. CONTE: It was just once?

20 MR. TUTTLE: Yes. If I remember right, it was
21 just enough to tell that something switched.

22 MR. CONTE: Okay.

23 Mike, do you have anything? I'm up to the point
24 when, later in the day, they were returning the UPS to the
25 normal supply.



1 MR. JORDAN: You've got everything I've got.

2 MR. CONTE: Okay.

3 You say you were communicating with the TSC at the
4 time, for the rest of the day, mostly. How much involvement
5 -- How much do you know about the decision to return the
6 uninterruptable power supplies that had been put on the
7 emergency supplies back to normal? I think this occurred
8 somewhere around 10 or 11 o'clock.

9 MR. TUTTLE: I wasn't involved in the decision at
10 all, and I really don't know how it was made.

11 MR. CONTE: Did you hear in the control room any
12 operators object to transferring back to normal?

13 MR. TUTTLE: No, I didn't hear any.

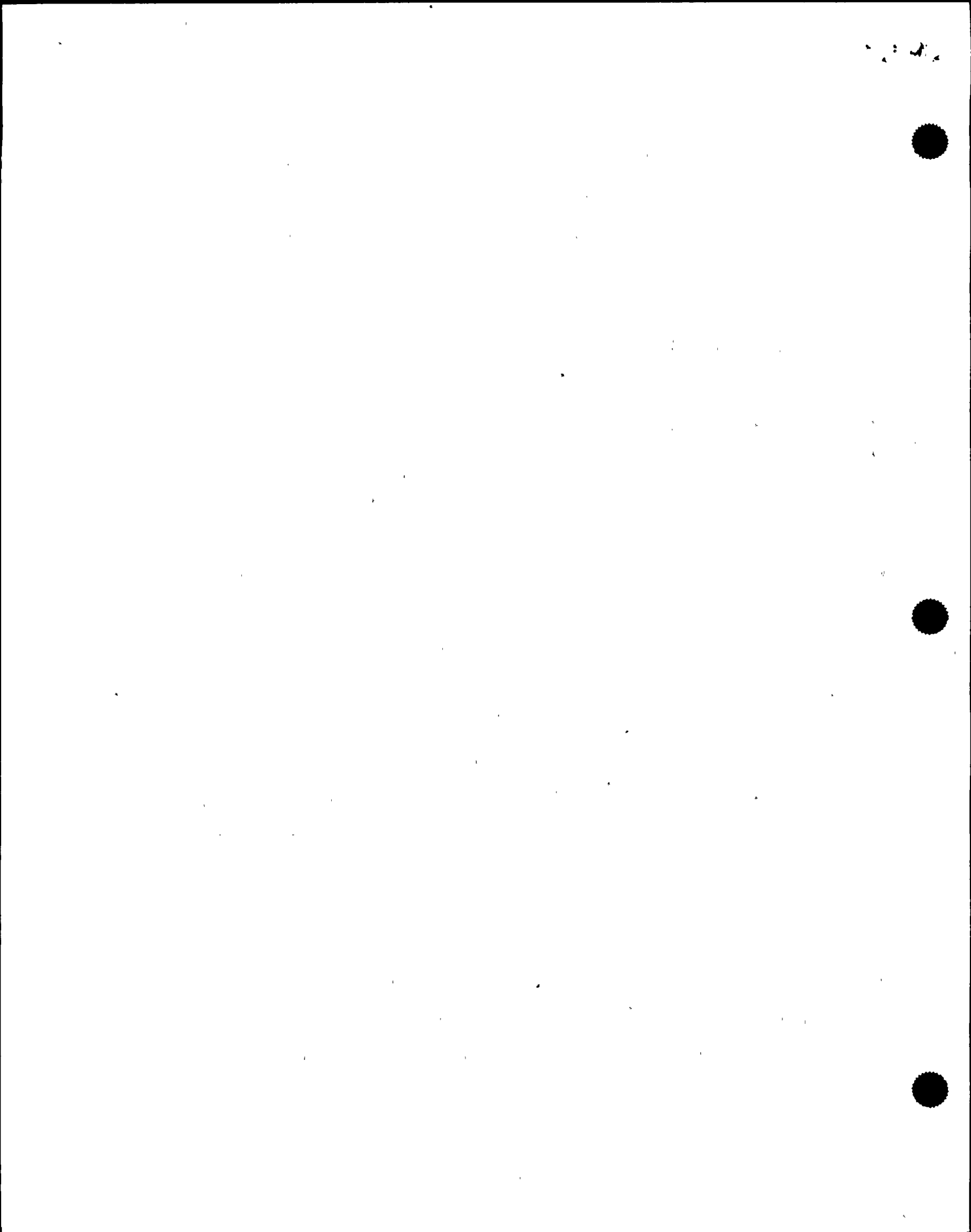
14 MR. CONTE: You just don't remember anything.

15 MR. TUTTLE: No.

16 MR. CONTE: That's fine. That's okay. Okay.

17 The SRV tailpiece temperature, were you able to
18 examine the temperature record back to the time of the
19 event? Was that instrument available in the whole event?

20 MR. TUTTLE: No. It failed. The only reason we
21 could tell us, some of the tailpiece temperatures were
22 reading high, anyway, and part of our job before was working
23 with annunciators, and that was causing a nuisance
24 annunciator, so I know some of them are reading high anyway.
25 When the power occurred, the recorder stopped. When the



1 power came back, you could see that the high SRVs, since
2 they were reduced in power at that point -- probably by the
3 time we even saw it were way down in power -- in pressure --
4 you could see two temperatures that were trending down from
5 above even the previous highest SRVs. And the previous
6 highest SRVs were reported lower than what they were
7 previously, so we concluded that the two had probably
8 lifted.

9 MR. CONTE: Is there any way of knowing SRV
10 opening with a loss of annunciators? Are there positive
11 indications of valve position on the SRVs?

12 MR. TUTTLE: There are indications. I'm not sure
13 how they would be affected. I don't have that much
14 knowledge yet. There are indications lights; there's an
15 acoustic monitor; and then I believe there are lights that
16 work off the SOVs, other lights.

17 MR. CONTE: Acoustics monitor? Is that just an
18 annunciator? If so then you wouldn't have seen it?

19 MR. TUTTLE: Oh, maybe that is an annunciator,
20 right. It could have been just an annunciator.

21 MR. CONTE: Is there a way you can tap in to hear
22 the acoustic monitor?

23 MR. TUTTLE: I believe downstairs you can tap into
24 it, but I'm not familiar with the procedure.

25 MR. CONTE: In other words, there isn't a monitor



1 in the control room, so you can turn up the volume?

2 MR. TUTTLE: Not to my knowledge.

3 MR. CONTE: You think it's downstairs in the relay
4 room?

5 MR. TUTTLE: I think you have to go down in the
6 relay room to physically listen to it.

7 MR. JORDAN: If the acoustic monitor alarms, or
8 initiates the alarm condition, recognizing that the panel in
9 the front wouldn't alarm, does it stay in the alarm
10 condition? Do you know if they worked?

11 MR. TUTTLE: When the annunciators came back, I
12 didn't notice it. I'm not even sure if it would, in other
13 words, acknowledge itself and defeat it. I would say it's
14 probably not locked in, but I don't have that much
15 knowledge.

16 MR. JORDAN: Okay.

17 MR. CONTE: Are you aware of what actions need to
18 be taken if an SRV lifts on a post-trip response?

19 MR. TUTTLE: I do now, but I didn't at that point.

20 MR. CONTE: What are they? Could you summarize
21 them for us?

22 MR. TUTTLE: Well, I believe you have to do a
23 surveillance on the vacuum breakers and the drywell. That's
24 as far as I know right now.

25 MR. CONTE: That concludes my questioning. Mike,



1 can you think of anything else?

2 MR. JORDAN: No, I can't think of anything else.

3 I think that concludes the interview, then.

4 MR. CONTE: Thank you, Tom.

5 MR. TUTTLE: Okay.

6 [Whereupon, at 10:00 a.m., the taking of the
7 interview was concluded.]

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REPORTER'S CERTIFICATE

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

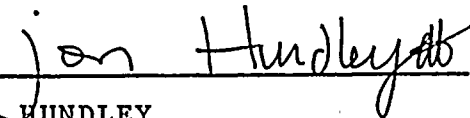
in the matter of:

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DOCKET NUMBER:

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