

ORIGINAL

07-106A-91

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission
Incident Investigation Team

Title: Nine Mile Point Nuclear Power Plant
Interview of: CLINT SMITH

Docket No.

LOCATION: Scriba, New York

DATE: Thursday, August 22, 1991

PAGES: 1 - 18

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1. The first part of the document discusses the importance of maintaining accurate records of all transactions.

2. It is essential to ensure that all entries are supported by appropriate documentation.

3. The following table provides a summary of the key findings from the audit.

4. The results of the audit indicate that there are several areas where improvements are needed.

5. These areas include the need for more frequent reconciliations and improved internal controls.

6. The audit also identified some minor discrepancies that have been resolved.

7. It is recommended that the management team take prompt action on these findings.

8. The audit team will continue to monitor the implementation of the recommended changes.

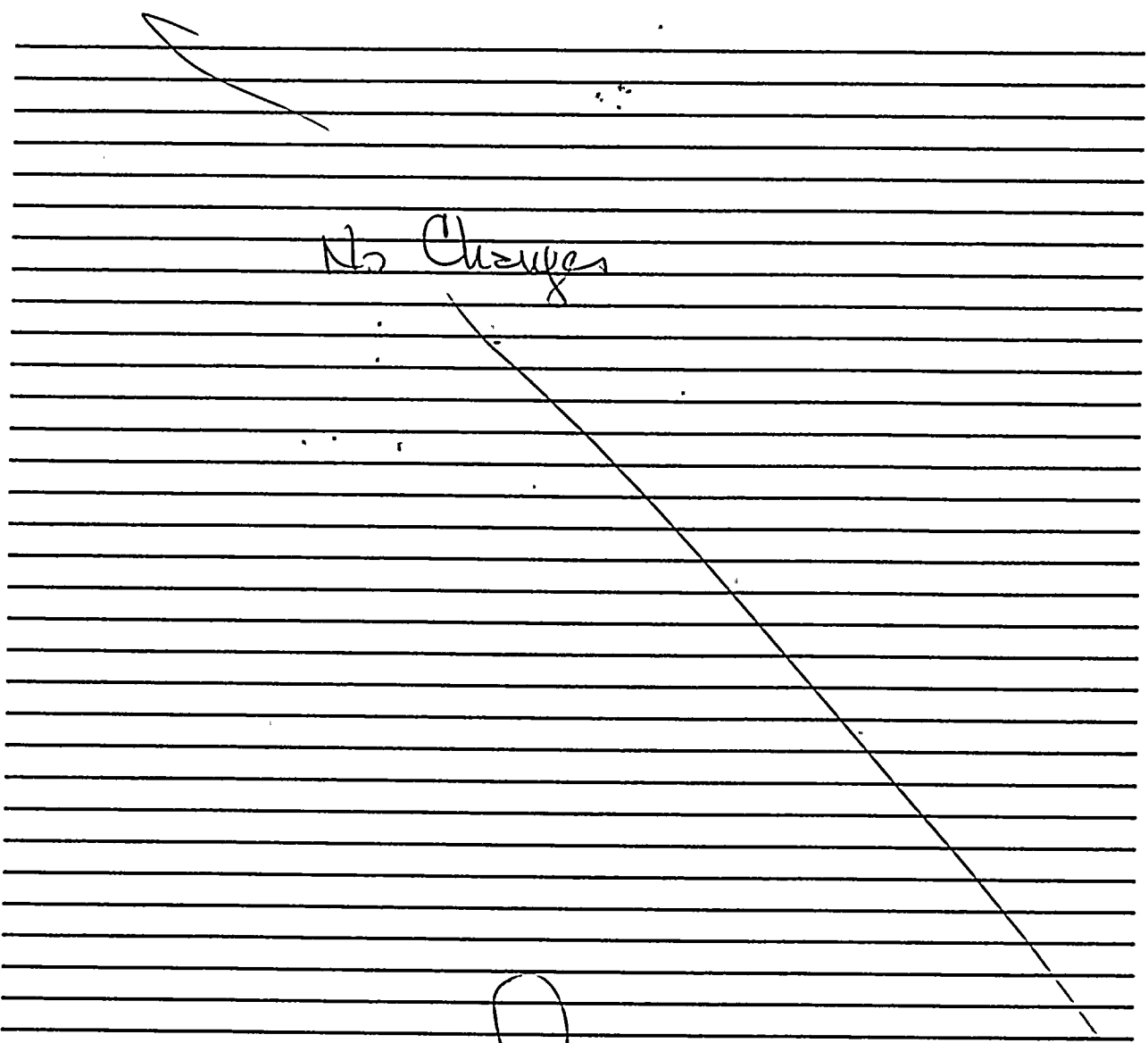
9. The final report will be submitted to the board of directors for their review.

10. Thank you for your cooperation and assistance throughout the audit process.

Exhibit 3-1 (continued)

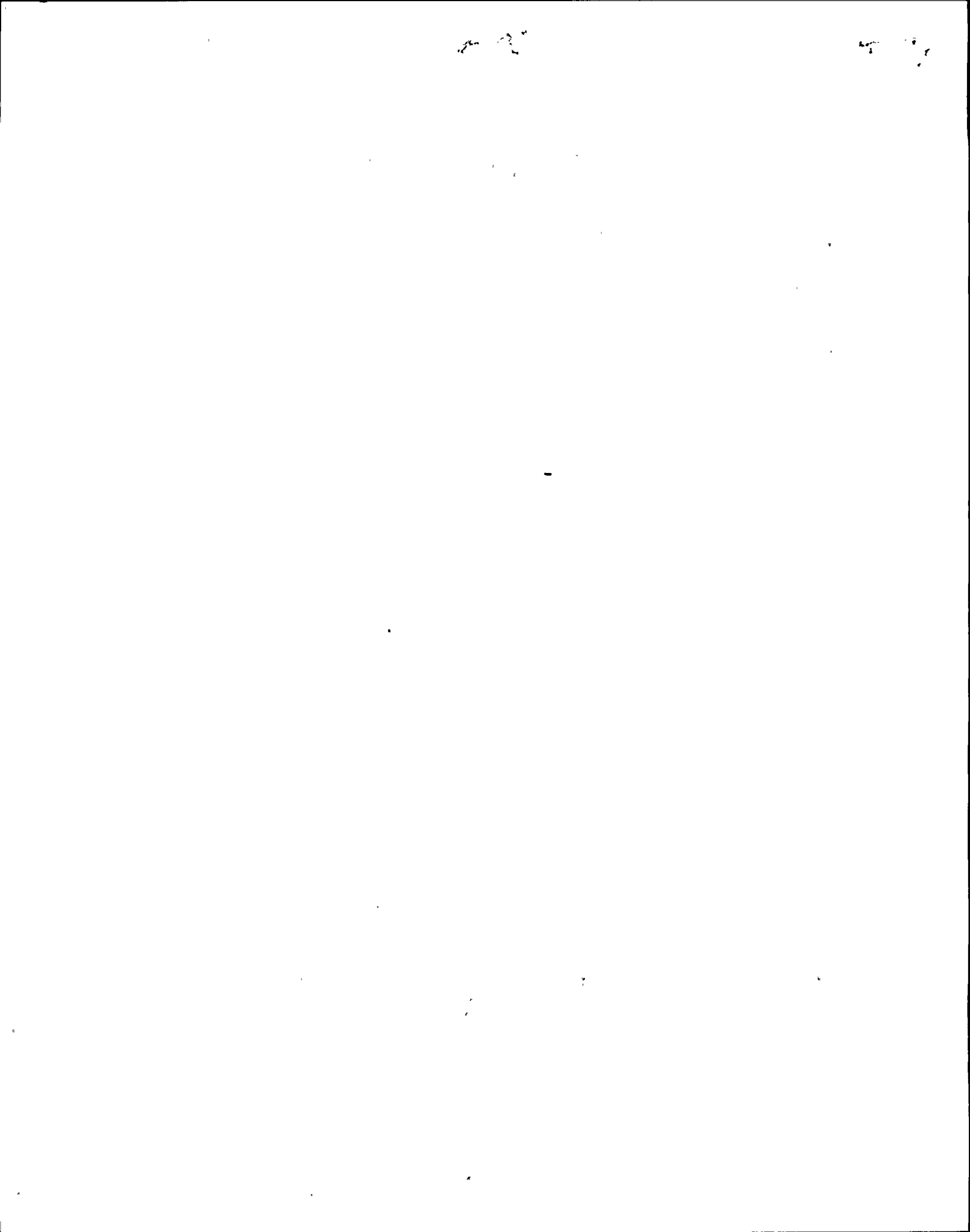
ADDENDUM TO INTERVIEW OF ⁻³⁻ Clint Smith
(Name/Position)

Page Line Correction and Reason for Correction



No Changes

Page 1 of 1 Signature Clint Smith Date 8/26/91



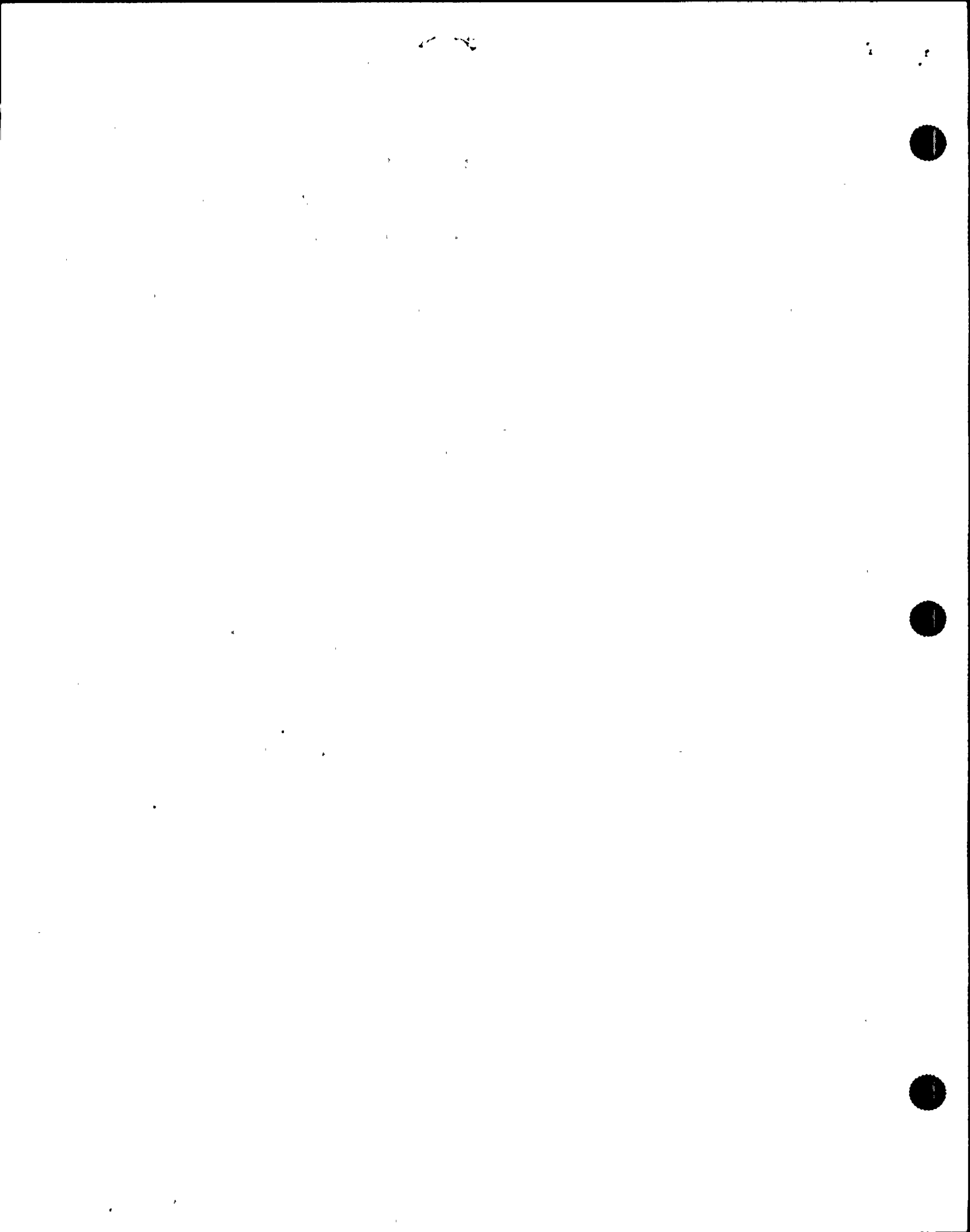
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
INCIDENT INVESTIGATION TEAM

Interview of :
CLINT SMITH :
(Closed) :

Conference Room A
Administration Building
Nine Mile Point Nuclear
Power Plant, Unit Two
Lake Road
Scriba, New York 13093
Thursday, August 22, 1991

The interview commenced, pursuant to notice,
at 6:44 p.m.

PRESENT FOR THE IIT:
John Kauffman, NRC
William Vatter, INPO



P R O C E E D I N G S

[6:44 p.m.]

MR. KAUFFMAN: We're at the Nine Mile Point, Unit Two, P Admin Building. The date is August 22nd, the time is approximately 6:45 in the evening. And we're here to conduct an interview concerning the Nine Mile Point Two event of August 13th, 1991.

My name is John Kauffman. I'm out of NRC headquarters.

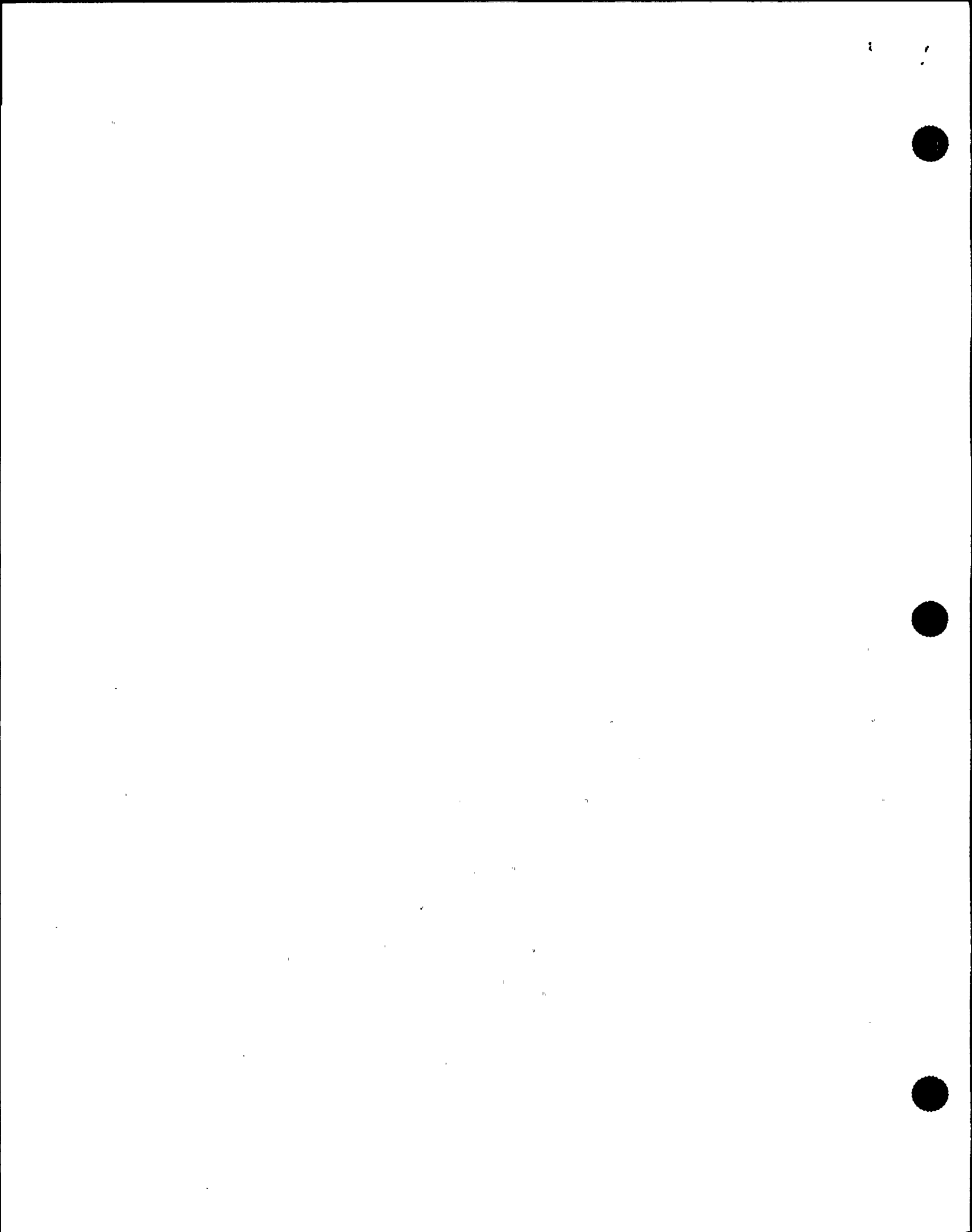
MR. VATTER: I'm Bill Vatter. I'm an employee of INPO and I belong to the IIT.

MR. SMITH: My name is Clint Smith and I'm a licensed nuclear reactor operator who was scheduled to work swing shift that day.

MR. KAUFFMAN: Clint, I would like you to tell us a little bit about your prior work experience and background and how you came to be a licensed RO?

MR. SMITH: My educational background is -- I'll start that, it's fairly near term. I received a BS in education from Oswego State in 1972. I went through a variety of jobs in technical sales areas until 1983. I worked temporary during the outage at FitzPatrick in '83 as a security person. I was hired on here in 1985 as an auxiliary operator.

I performed the normal duties of an auxiliary

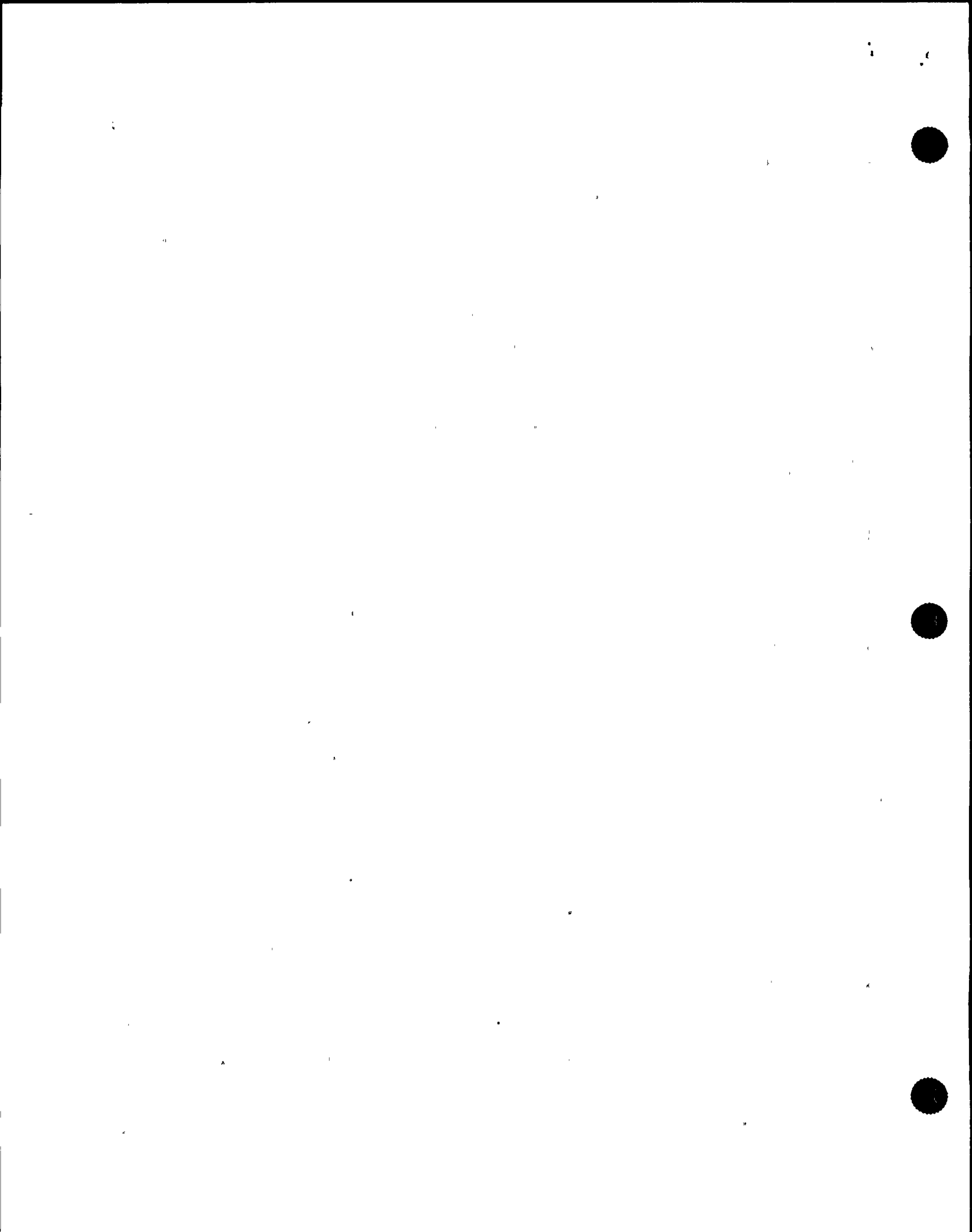


1 operator until 1989 in which time I went to license class
2 and completed the license class in August of 1990, a year
3 ago. And received my license in October of last year. And
4 started performing licensed duties at that time.

5 MR. KAUFFMAN: Okay. Good. I'd like you to walk
6 us through what you did and what you saw associated from
7 that event?

8 MR. SMITH: All right. To give you a little
9 background on where I was coming into the event. I was
10 scheduled to work swing shift that day from 2:30 to 10:30.
11 However, I was lacking in some training that was required
12 and I went to the training center at 7:00 a.m. that morning.
13 And by then enough had occurred that it was pretty evident
14 to anybody that was driving up and down the road that
15 something was going on. When I got to the training center
16 I inquired of some people and found out some brief
17 background and it was fairly accurate information that we
18 had had a transformer problem and some loss of power in the
19 control room. However, the plant was shut down and
20 apparently cooling down in a normal fashion.

21 I went ahead and took care of the training that I
22 had gone to the training center for and along about 9:30 or
23 10 o'clock I called the control room and asked if they
24 needed my assistance and they felt that probably later in
25 the day they would need more people to relieve the people



1 who are already there.

2 MR. KAUFFMAN: Okay.

3 MR. SMITH: So I went on home and I was in the
4 control room at 2 o'clock.

5 MR. KAUFFMAN: And when you got in the control
6 room what were you asked to do?

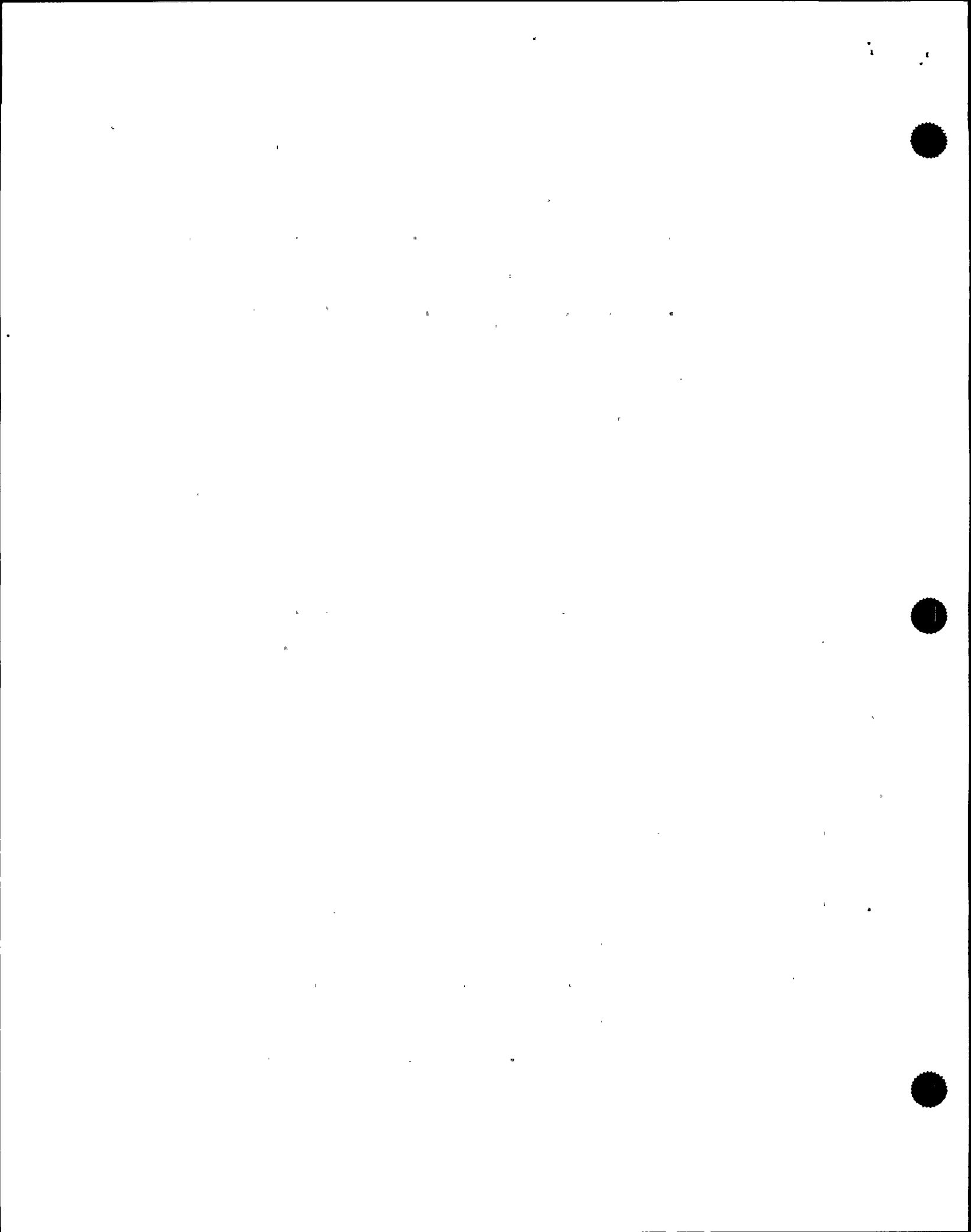
7 MR. SMITH: Okay. When I got in the control room
8 I kind of stood back a little bit to try to see what was
9 going on, what conditions were, who was working on what; to
10 get as much of a turnover of information as I could from
11 the people -- even though we weren't doing it as formally
12 that day --

13 MR. KAUFFMAN: You weren't turning over to take
14 the shift, you were just learning what was going on?

15 MR. SMITH: Correct.

16 MR. KAUFFMAN: So you could help?

17 MR. SMITH: Correct. And then I was asked to
18 relieve Brian Moore at panel 601 who was in the process of
19 establishing shutdown cooling through the B loop of RHS.
20 Brian walked me through the procedure as far as -- from the
21 beginning of the portion regarding shutdown cooling and up
22 to the point that he was at. He filled me in on any
23 problems that they may have experienced and at that point
24 consented to stay on to help out. He was going to go home,
25 but he decided to stay on. And at that time of the day



1 there were people who were going, so it was kind of nice to
2 have somebody stay on who had been there for a while.
3 Especially with the -- the setting up of shutdown cooling
4 because it's not something that you do everyday. It's nice
5 to have somebody with a little experience with it.

6 MR. VATTER: Do you know why he changed his mind
7 to stay on? You say he had planned to go home?

8 MR. SMITH: No. I don't know why. He stated to
9 me -- he stated to me, Bill, that he didn't want to leave me
10 with the responsibilities of, you know, trying to bring on
11 shutdown cooling by myself.

12 MR. VATTER: Okay.

13 MR. SMITH: Brian and I had worked on shift
14 together previously and he's been licensed longer than I and
15 he tends to kind of help out that way.

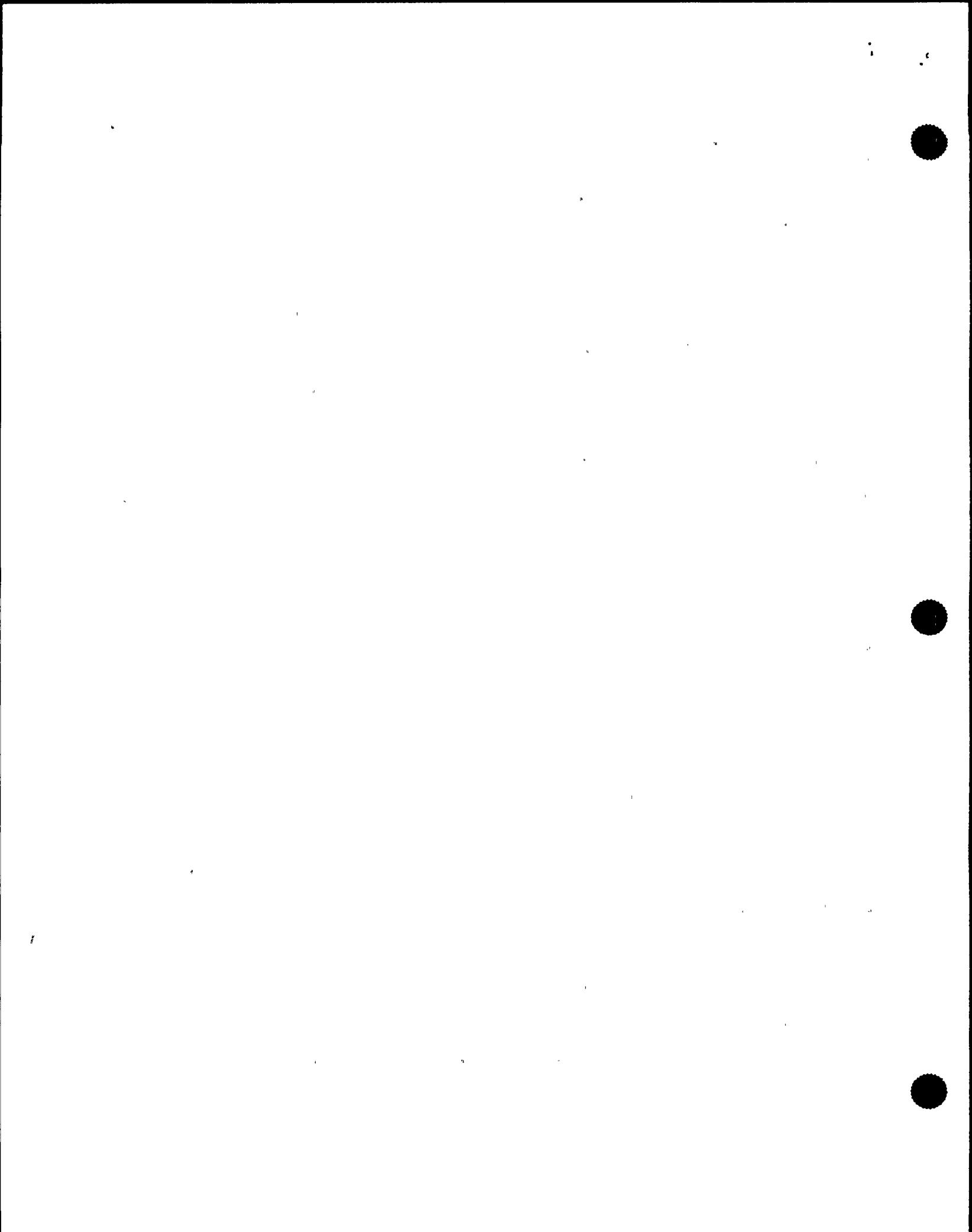
16 MR. VATTER: It's good to get along with people
17 like that. That's fine.

18 MR. KAUFFMAN: It's good not to take something
19 over in the middle like that sometimes.

20 MR. VATTER: Work together for a while until you
21 get a feel for it.

22 MR. SMITH: Well, Brian is a good team player.
23 And if I were to speculate, that was the reason that he
24 stayed.

25 MR. KAUFFMAN: Okay. And then he assisted you or



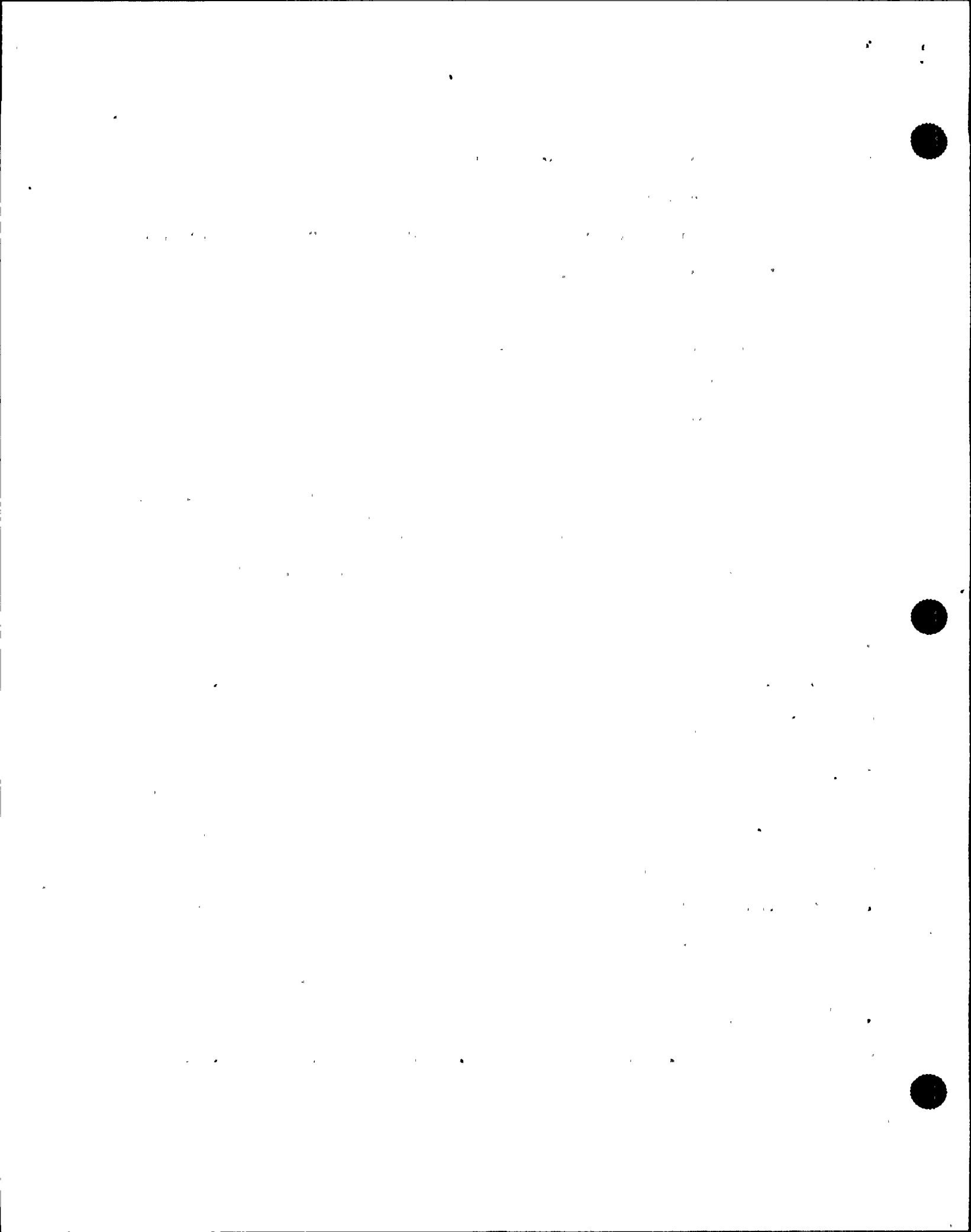
1 you assisted him, but you continued to shutdown cooling?

2 MR. SMITH: Correct. I took primary
3 responsibility of establishing shutdown cooling from the
4 point at which Brian had taken it to. He assisted me at
5 panel 601. I was principally involved with the RHS portion.
6 Brian was involved with incidentals, you know, marking
7 temperatures on temperature recorder, noting times as
8 required by startup. When we start shutdown cooling, we
9 have no min flow protection and we have to establish flow
10 within a 15 second time period. And I relied on Brian to
11 say, hey, give me a countdown on the watch. I'm watching
12 amps and trying to get this valve opened. That's mainly
13 where he was.

14 MR. KAUFFMAN: Okay. How did it go when you doing
15 shutdown cooling? Any problems or did it all go real
16 smooth?

17 MR. SMITH: It went fairly smooth. I don't --
18 like I said, you don't put shutdown cooling on that often
19 and other than having done it in the simulator I don't have
20 a lot of experience with shutdown cooling. So it was a
21 challenge to me. But I felt confident that I could do it
22 as long as I followed the procedure and just moved along
23 slowly which we could do under the circumstances and make
24 sure that everything was done correctly.

25 MR. KAUFFMAN: Did you take over from Brian after



1 he had done some of the flushing portion or --

2 MR. SMITH: Yes. Brian had flushed on the
3 discharge side of the pump the line up from that basically
4 is from the vessel back through the discharge piping and
5 then through a flush line to rad waste. And then we picked
6 up and they had started just before I took over for Brian,
7 they had started warming up the suction side and had
8 experienced some level control problems and they had stopped
9 at that point and backed up, got leveled a little bit higher
10 in the band from where they had originally started it so
11 that when they lost level, which they would naturally
12 anticipate, because you're opening up the isolation valves
13 for the loop.

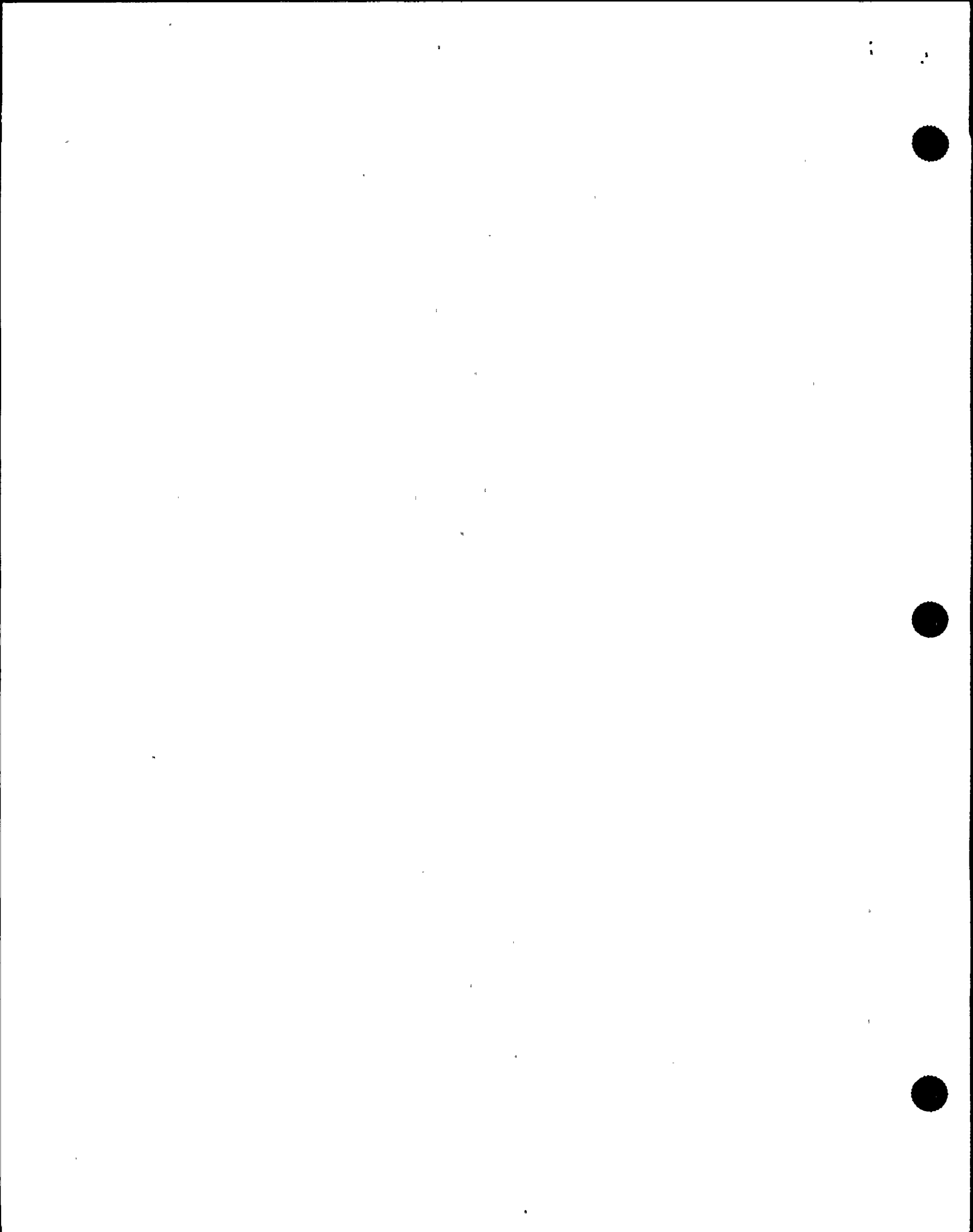
14 That's where I took over and we brought on our
15 flush, again, through the suction piping through the pump
16 and then over to rad waste and had not problem with level at
17 that time.

18 When we had the temperatures that we required to
19 be able to start the pump, then we went ahead and did that.

20 MR. VATTER: You said you had some level
21 perturbations, did I characterize that right? Level
22 fluctuations? I don't recall the exact words you used.

23 MR. KAUFFMAN: I think he said earlier on, the
24 previous group did.

25 MR. SMITH: Yeah. I didn't have that problem.



1 That had occurred in one of the last steps that Brian was
2 doing prior to my relieving him.

3 MR. VATTER: Do you recall him telling you what
4 step it was that he was having that problem with?

5 MR. SMITH: It was at the point where we were
6 opening MOV-113 which is the upward isolation valve for
7 shutdown cooling and it's a pretty good sized diameter pipe.
8 You're getting a pretty good flow out of the reactor vessel
9 at that time.

10 MR. VATTER: So, maybe there were some voids in
11 that RHR pipe that the water was rushing in to fill? Could
12 that be why they had trouble?

13 MR. SMITH: I'd have to answer that speculatively.
14 I don't know about it.

15 MR. VATTER: Okay. I understand that. I'm
16 asking you to tell me something that you wouldn't know.

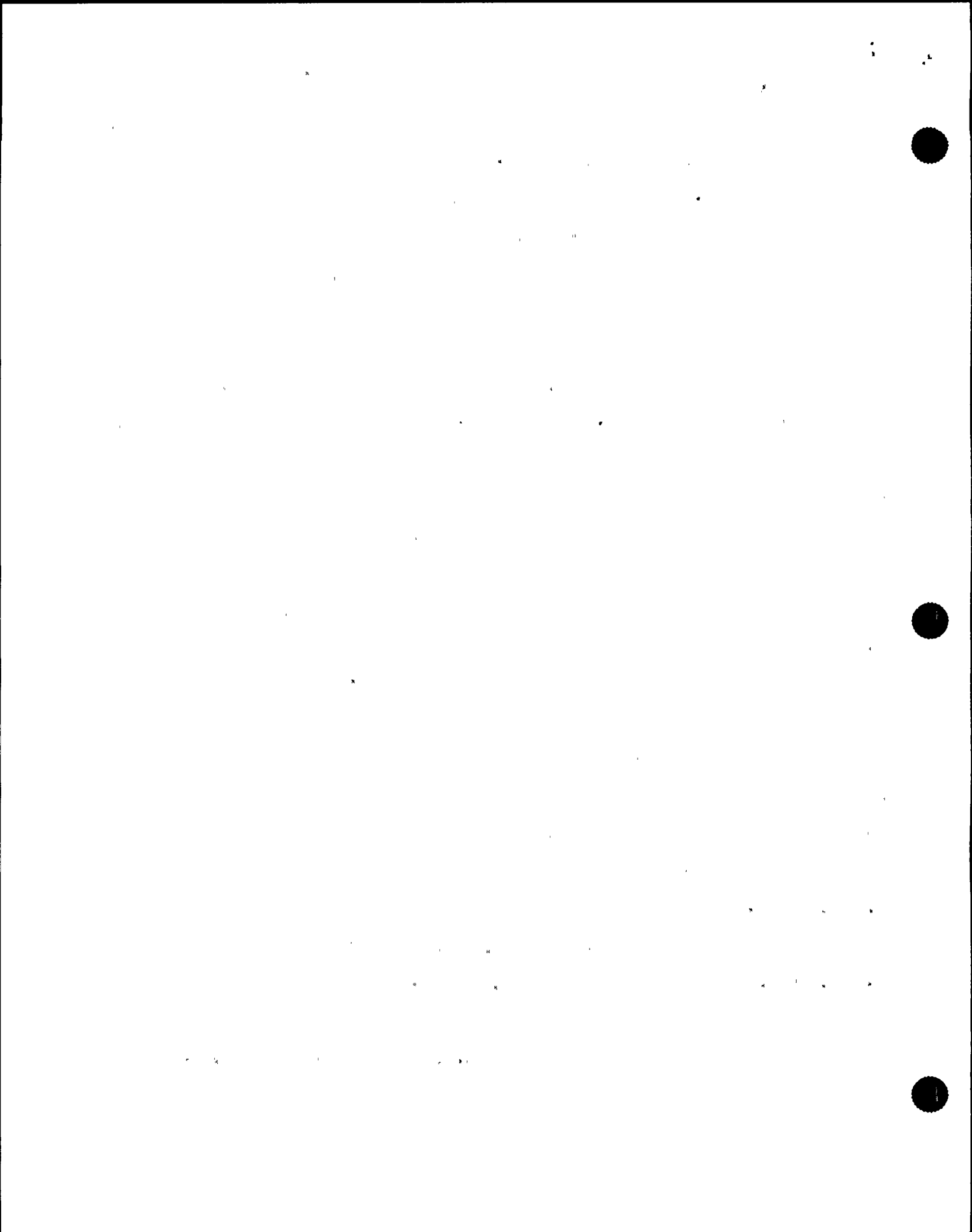
17 The suction piping comes out of the bottom of the
18 vessel, is that right, RHR?

19 MR. SMITH: It comes off from the -- yeah, you
20 could call it the bottom of the vessel. It comes off from
21 the recirc loop. And that takes suction off the bottom.

22 MR. VATTER: Okay. And the flush that you're
23 talking about was water from the reactor vessel?

24 MR. SMITH: That's correct.

25 MR. VATTER: Through the RHR piping to rad waste?



1 MR. SMITH: That's correct.

2 MR. VATTER: So you got the old stagnant water out
3 of there at the same time you were getting the piping all
4 warmed up?

5 MR. SMITH: That's correct.

6 MR. KAUFFMAN: Did Brian tell you of any other
7 problems he encountered? In our interviews we've heard
8 there was some water hammer in RHR when they were doing the
9 flush and draining water to rad waste, did he mention that
10 or talk about that?

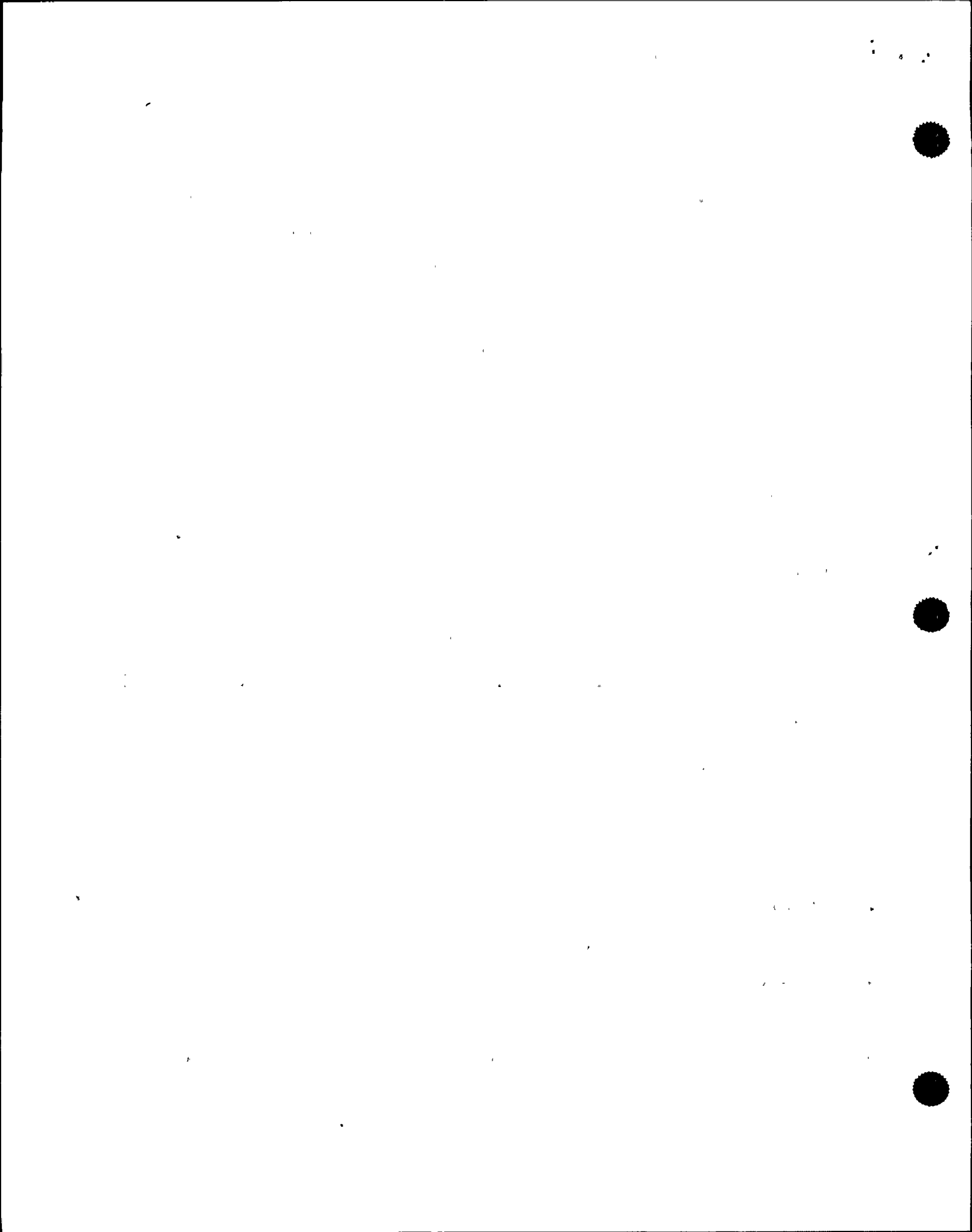
11 MR. SMITH: That was mentioned as an aside. We
12 never focused on it. And I got the feeling that it was
13 something that had happened prior to my getting there and
14 whatever it was, it had been either resolved or understood
15 and corrected and I -- I didn't pursue it and it was just --
16 you know, it was an aside.

17 MR. KAUFFMAN: Okay. So you went on and you got
18 shutdown cooling on?

19 MR. SMITH: Correct.

20 MR. KAUFFMAN: And then what activities were you
21 involved in?

22 MR. SMITH: Once you put shutdown cooling on it's
23 paramount that you monitor the system and control cooldown
24 rate on the vessel. We did have some minor problems with
25 cooldown in that we approached a rather large cool down



1 rate.

2 MR. KAUFFMAN: In the 100 degree an hour --

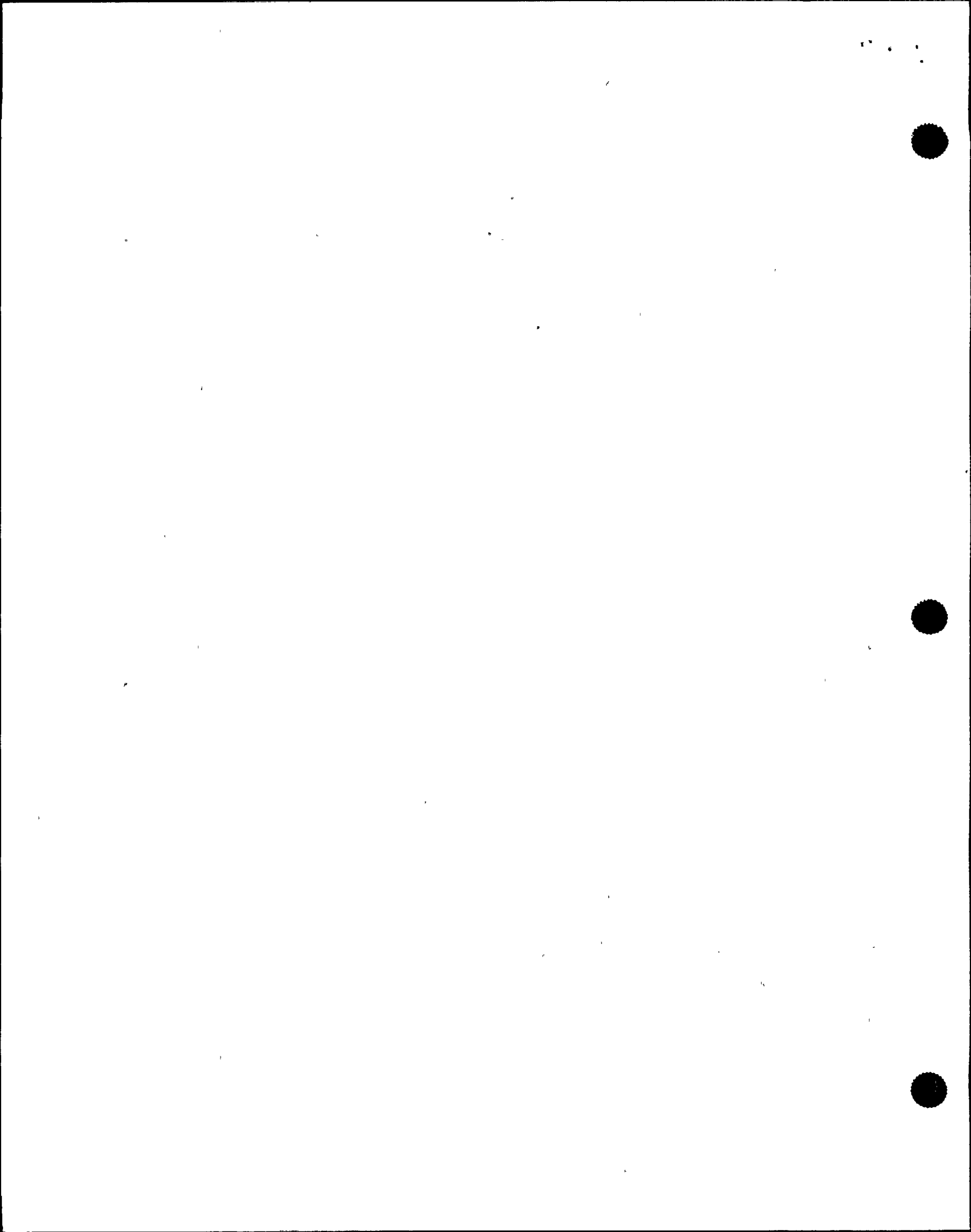
3 MR. SMITH: 100 degree an hour cooldown rate is
4 our tech spec limit. We were approaching that. And I --

5 MR. KAUFFMAN: Was there a reason for that? How
6 did that happen?

7 MR. SMITH: I think that it was due to my lack of
8 experience with putting it on. And I had other people
9 standing there who had background in it and experience --
10 management people who have experience with the system who
11 were helping me -- overseeing what I was doing and saying
12 okay, we've got to do this -- it would be best probably to
13 watch this; there was discussion about the amount of service
14 water flow rate that we should have at the front end through
15 the heat exchanger. And we were -- I think it was just a
16 matter of developing a feel for the flows and how much we
17 had.

18 See, we were throttling through the shutdown
19 cooling discharge valve, that would be MOV-40 Bravo and
20 throttling through the service water outlet from the heat
21 exchanger. We were trying to balance the flows so that we
22 were meeting flow requirements and meeting cooldown
23 requirements.

24 And you know, we were dealing with a couple of
25 parameters up and down and counterbalancing each other. It



1 was a matter of just balancing out flows to get the cooldown
2 that we needed.

3 At one point we arrested the cooldown and I think
4 we stood still for about 45 minutes to just let things
5 settle out. And to be sure that we didn't walk ourselves
6 into anything further.

7 MR. KAUFFMAN: Was somebody plotting cooldown
8 during this evolution?

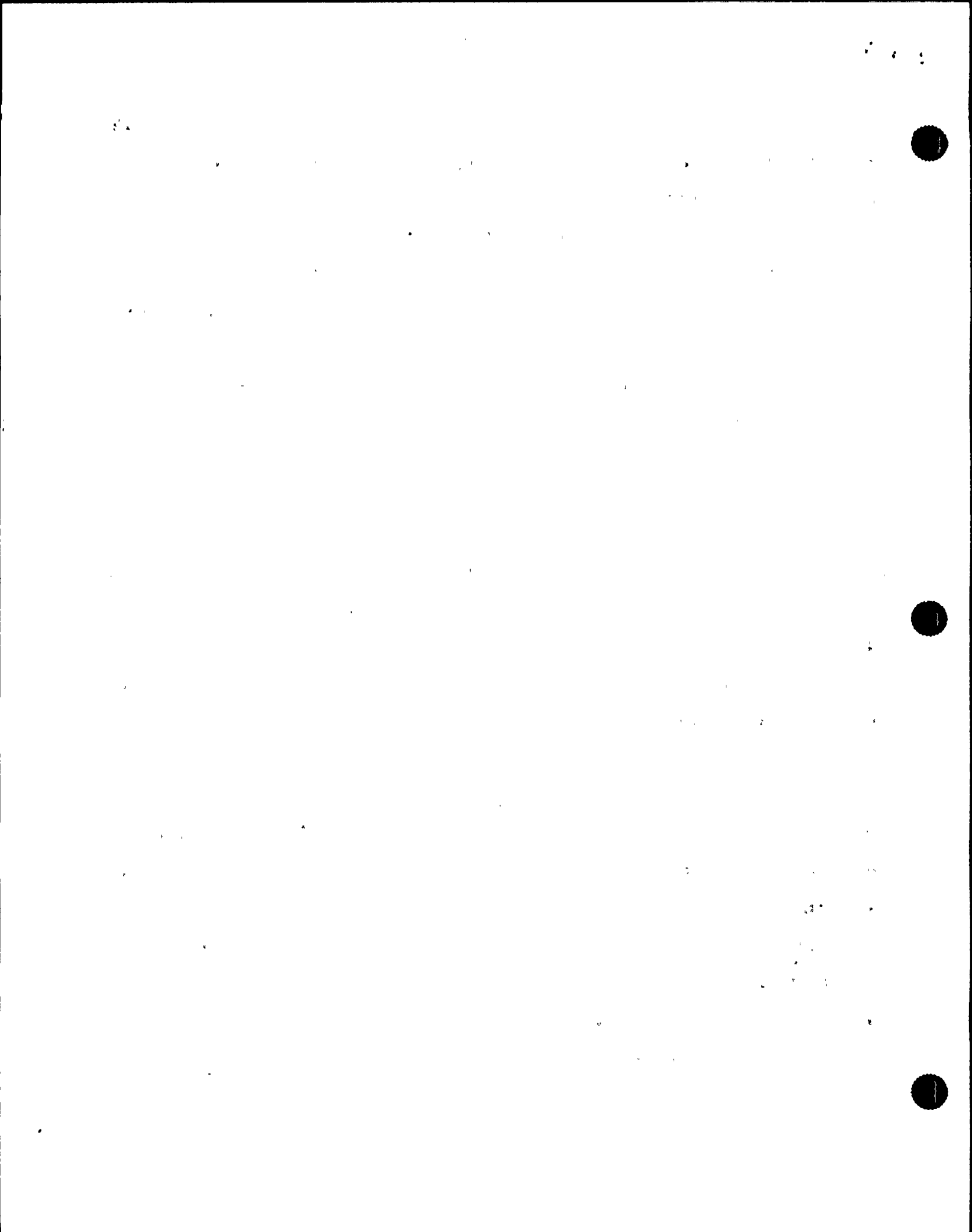
9 MR. SMITH: Yes.

10 MR. KAUFFMAN: And they were aware all along of
11 what the cooldown rate was?

12 MR. SMITH: Yes. We had excellent communications
13 on that. We established -- immediately when we start
14 cooldown we establish -- or when we shut down, we establish
15 a procedure that tracks cooldown and I believe that at the
16 time that we established shutdown cooling we were tracking
17 it every five minutes and so we were aware of it.

18 And it quickly -- our cooldown rate quickly jumped
19 and we quickly go hold of it and brought it back. And then
20 we settled things down to just kind of let things -- I think
21 it's natural for you, if you're not in an emergency
22 situation to back out, let things settle out a little bit
23 and then try to re-approach it again, to do it in a more
24 controlled fashion.

25 MR. KAUFFMAN: Sure. In some of the previous



1 interviews we heard that people were plotting it every five
2 minutes, but the form for evidently calculating the cool
3 down rate as you multiply whatever your cooldown rate is for
4 15 minutes by 40, it's your hourly cooldown rate and
5 somebody was taking it -- since you were taking it every
6 five minutes and then multiply it by four, that really gave
7 you a cooldown rate for 20 minutes rather than --

8 MR. SMITH: Right.

9 MR. KAUFFMAN: -- an hour or so. There was some
10 confusion there.

11 MR. SMITH: I'm not aware that that happened.
12 It's possible that could have happened aside to the
13 communications to me and that it was corrected.

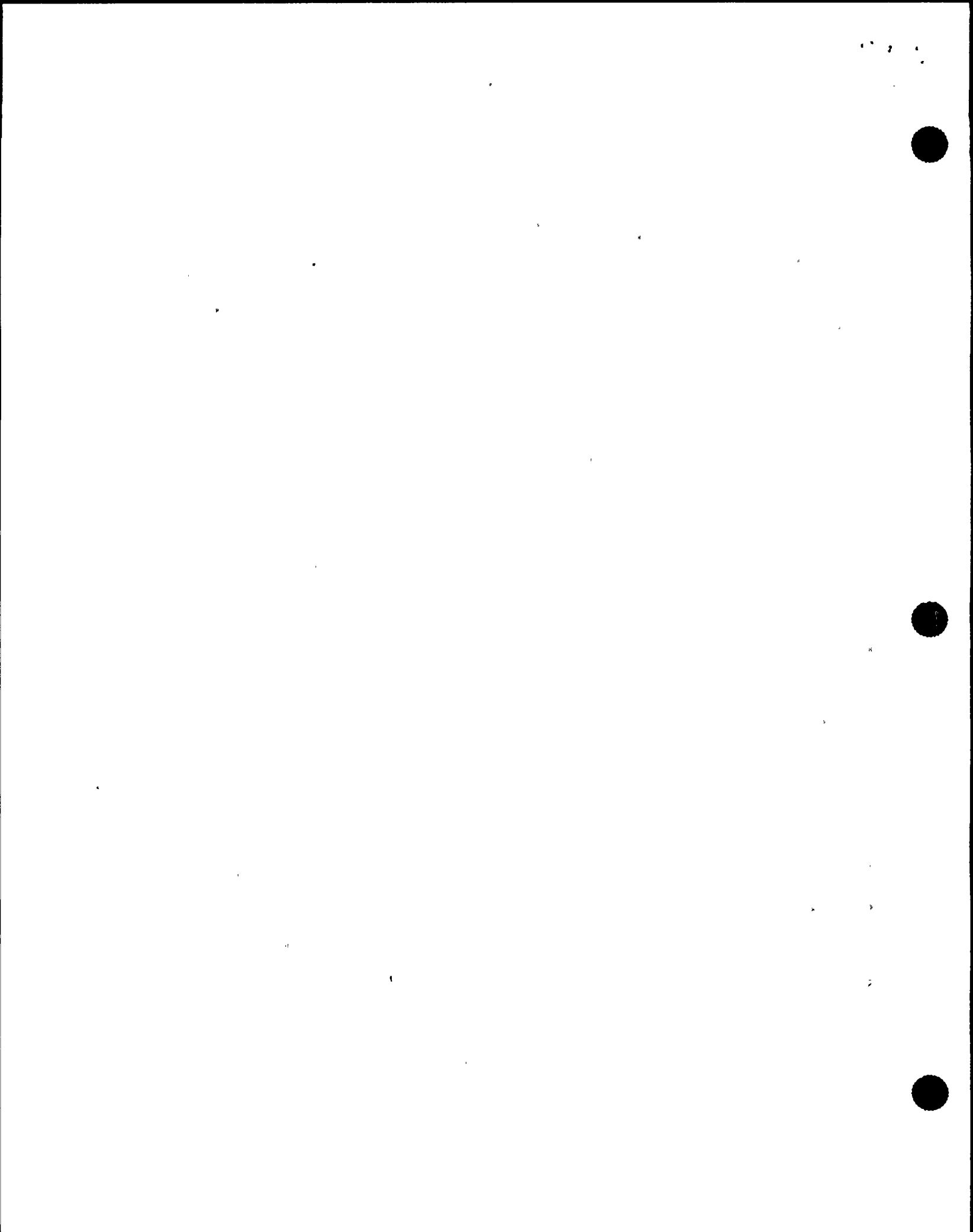
14 MR. KAUFFMAN: Okay.

15 MR. SMITH: There were -- you know, there were a
16 number of people that were watching it.

17 MR. KAUFFMAN: By number, do you mean two, four,
18 ten, 15, just make an estimate?

19 MR. SMITH: Four to six. We had the SSS, another
20 operations manager who was kind of overseeing what was going
21 on on panel 601. The fellow that was -- the operator that
22 was taking the data, myself, he was reporting to me on a
23 very regular basis, the CSO, six anyway. Yeah.

24 MR. KAUFFMAN: Do you have any more questions
25 about shutdown cooling?



1 MR. VATTER: No.

2 MR. KAUFFMAN: Were you involved in any more
3 activities during the shift?

4 MR. SMITH: No. I was focused principally on
5 shutdown cooling from the time that I took over from Brian
6 until we got to cold shutdown. I tried to undergo some of
7 the normal shift routine, as normal as a routine as you can
8 establish after a day like that.

9 MR. KAUFFMAN: And then about what time did you
10 get relieved?

11 MR. SMITH: Well, I went home at 10:30.

12 MR. KAUFFMAN: That's a long day.

13 [Pause.]

14 MR. SMITH: Once we had our cooldown established
15 so it was real low and we were in cold shutdown and the
16 event had been declared over, we got into more routine
17 things and more OP-101-Charlie shutdown stuff. OP-101-C,
18 thinking about inerting the containment and so forth and as
19 well as doing shift checks and daily checks and so forth.

20 MR. KAUFFMAN: Bill, do you have any more
21 technical questions?

22 MR. VATTER: I'm not sure that I understand the
23 problem with that valve that was supposed to open going to
24 rad waste.

25 MR. SMITH: I'm not sure I understand your



1 question. Maybe you've misunderstood something that I
2 indicated if you could backup and clarify that a little
3 bit, maybe I can --

4 MR. VATTER: Well, we heard that there was trouble
5 getting the valve opened? Either that, or when it went open
6 it went open all the way instead of throttled, of let water
7 down to rad waste from RHR?

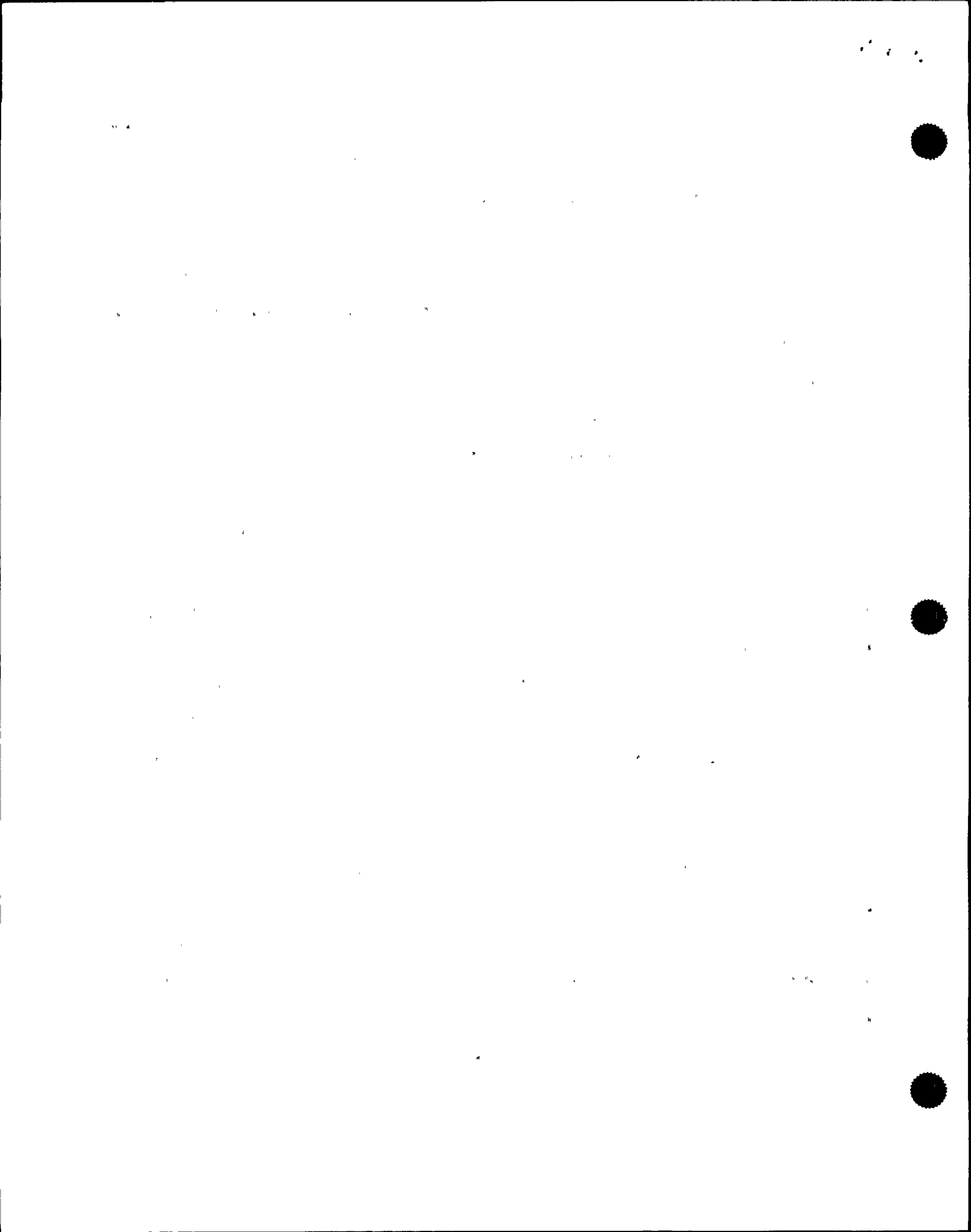
8 MR. SMITH: We have --

9 MR. VATTER: And I really don't any more about it
10 --

11 MR. SMITH: From a human factor standpoint we have
12 a difficulty with reject because we don't have any
13 indication of how much we're rejecting. That's a double
14 isolation path with an MOV gate valve followed by an MOV
15 throttle valve -- the throttle valve has no indication of
16 position and no indication of flow. And we use that for
17 level control and it also dictates the amount of service
18 water flow for cooling because we have a limit on the
19 temperature of water that can be rejected to rad waste
20 because of the fiberglass tanks down there, we cannot exceed
21 180 and we have a procedural limit not to exceed 150.

22 Because of the lack of flow indication or position
23 indication on the valve, we're not sure just exactly how
24 much flow we have there.

25 [Pause to answer door.]



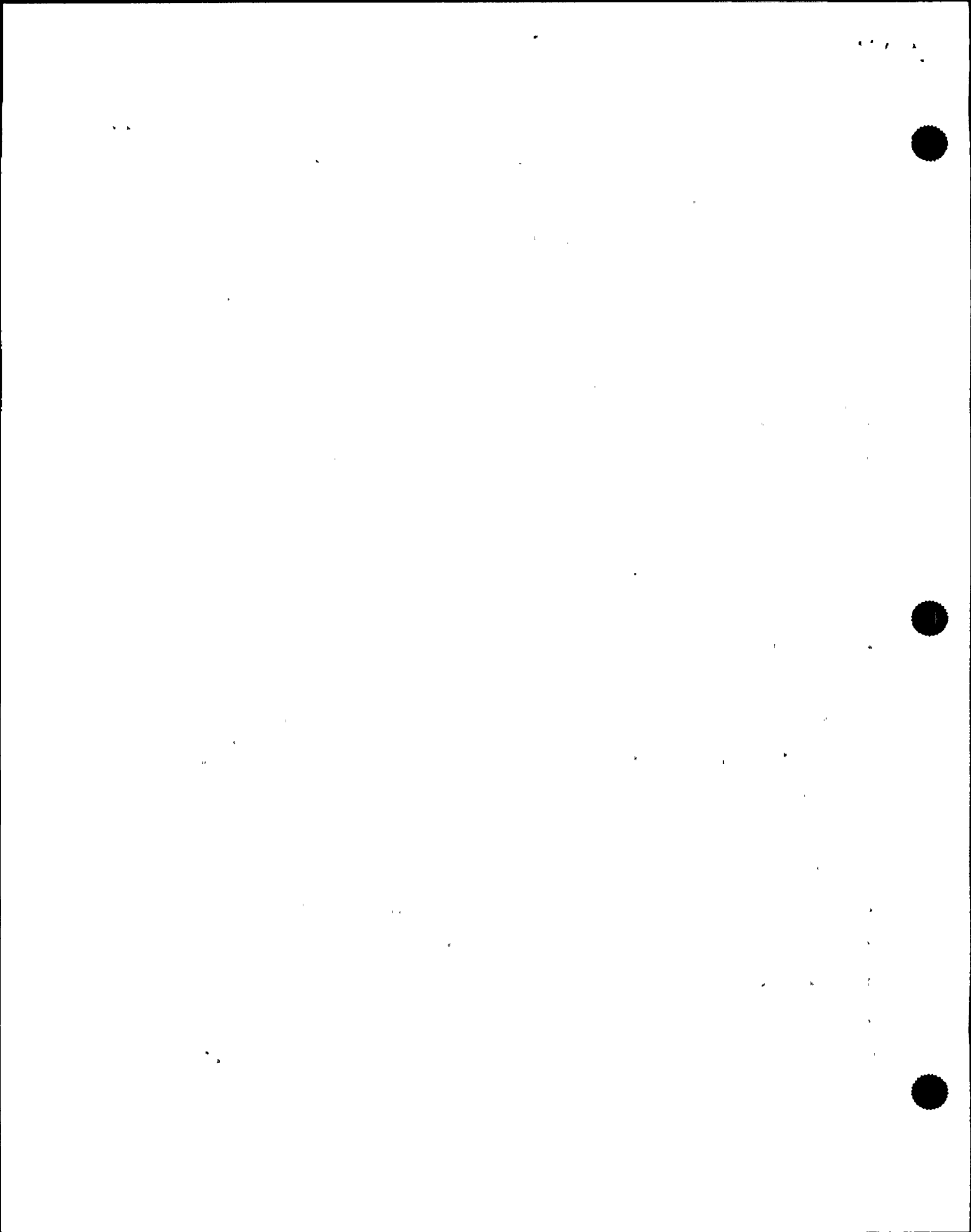
1 MR. VATTER: So were there any problems with
2 controlling that flow to rad waste? Like, for example, when
3 you opened the valve you got it too far opened and too much
4 water got away from you for a while? I'm not suggesting
5 that that happened, but I'm trying to characterize the kind
6 of thing that --

7 MR. SMITH: Bill, I wouldn't answer that by saying
8 that too much water got away from us. It was a third
9 component in the control function. We're trying to control
10 cooldown rate. We're trying to control the temperature
11 that's going to rad waste, cooldown rate is first, it's a
12 tech spec limit. But by the same token you want to pay
13 attention to not damage equipment. Specifically the
14 fiberglass and rad waste.

15 So, instead of being a two function thing where
16 you're controlling service water and the flow rate of RHR,
17 you're also trying to control the reject flow rate. And
18 control vessel level and not get it too hot. So it's --

19 MR. VATTER: Why did you need to be rejecting
20 water to rad waste?

21 MR. SMITH: We were rejecting water because that
22 was our level control on the vessel. We had water going in
23 from CRD which we had throttled. But we didn't have cleanup
24 on. And that would be our normal reject path for
25 controlling the level or we didn't have cleanup on.



1 MR. VATTER: You needed the reject water to take
2 care of the in-flow from CRD?

3 MR. SMITH: That's correct. But we were also
4 throttling down.

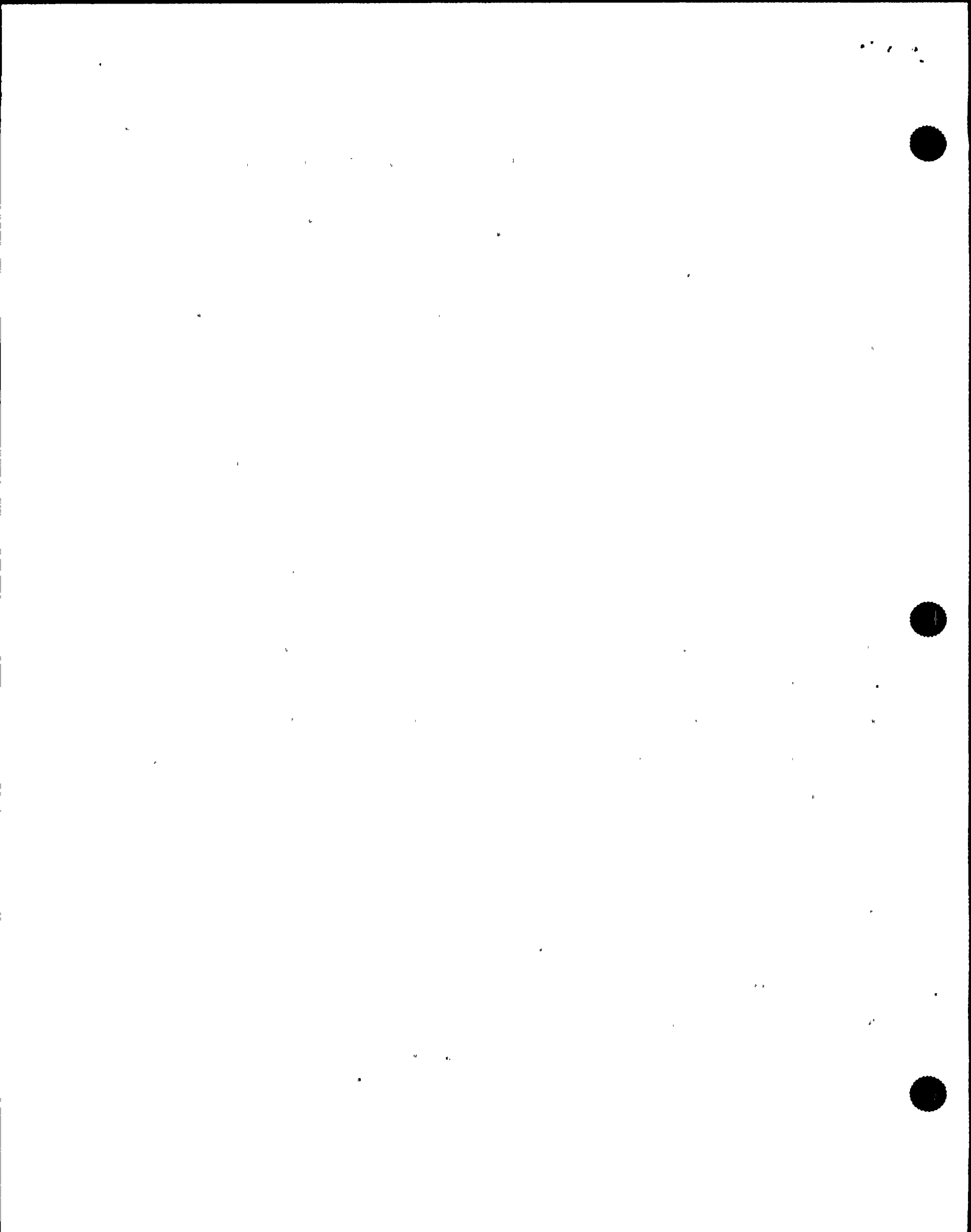
5 MR. VATTER: But you weren't feeding with
6 condensate or anything?

7 MR. SMITH: Not while I was running shutdown
8 cooling. We were not feeding with condensate.

9 MR. VATTER: Okay. I understand that.

10 MR. KAUFFMAN: Well, if you don't have any more
11 technical questions -- we ask a question and it's kind of a
12 lessons learned question and it's -- when you think back on
13 the event and your participation in it and all the
14 activities you did, maybe some things went well and you're
15 really glad that was there and maybe other people at other
16 plants could learn from that and have that there. A very
17 minor example would be a valve wrench at a valve you needed
18 to go operate, you go out there and it's there and you go,
19 boy, I'm glad somebody was smart enough in thinking ahead to
20 put that there. Conversely you maybe had to go to that
21 valve and the valve wrench wasn't there and you said, well,
22 gee, somebody needs to make sure that next time the valve
23 wrench is there.

24 So, are there any things, either good or bad, that
25 occurred to you as this event -- things that you're really



1 glad were there, things that could be better, could be
2 fixed?

3 MR. SMITH: The only thing that I can think of and
4 that was identified at the time was that perhaps the RHS
5 procedure could have flowed better for establishment of
6 shutdown cooling. We have addressed that. We addressed it
7 at the time that we witnessed a rapid cool down rate. It
8 was because of sequencing of procedural steps which could
9 have been better organized, I felt, to make it easier to
10 bring it on.

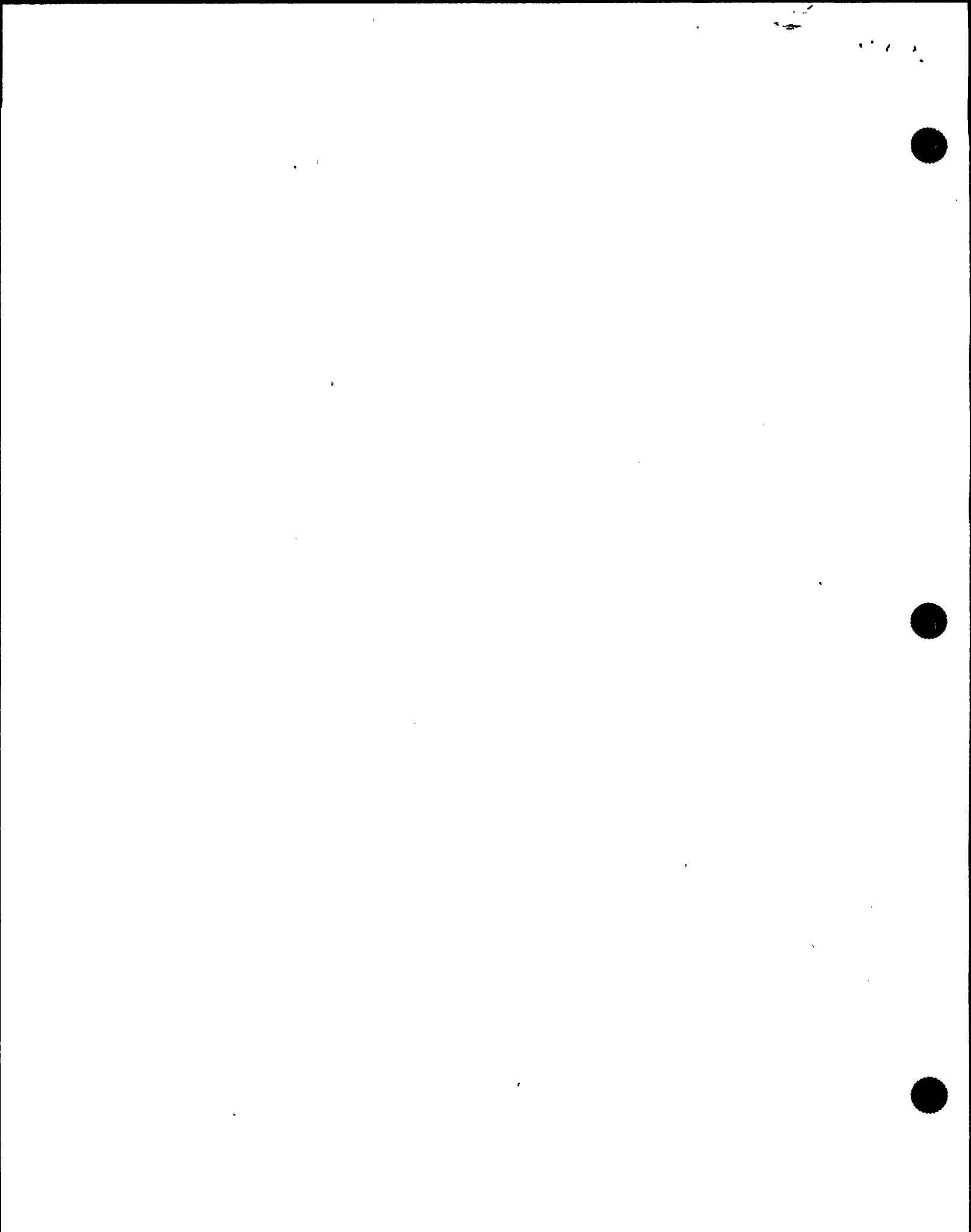
11 [Asides.]

12 MR. KAUFFMAN: We're back on the record.

13 MR. SMITH: That was discussed at the time that we
14 had the difficulty between myself and the operations
15 management person that was there.

16 MR. KAUFFMAN: Were there any particular sections
17 that you felt were -- were -- presented the big problems or
18 --

19 MR. SMITH: I think we had too much service water
20 flow to begin with. That caused us to be cooling faster
21 than we wanted to be. I, of course, having not brought
22 shutdown cooling on before didn't have a feel for what kind
23 of cool down rate I was even going to see. And I think that
24 we could reformat slightly that section of the procedure and
25 probably clean up the directions of how to establish the



1 flow or how much flow to be established to make it easier
2 for the next guy to bring it on.

3 MR. KAUFFMAN: Okay.

4 MR. SMITH: And from my standpoint that's the
5 only thing that I've been able to think of since then that
6 would have made things better.

7 MR. KAUFFMAN: Okay. Last question we normally
8 ask is -- and we've been asking all the questions, if
9 there's anything we didn't talk about or missed that you
10 want to talk about or think that it's important, it's your
11 opportunity.

12 MR. SMITH: I think we just discussed that. The
13 only thing that was a hard spot for me and I guess I
14 shouldn't use the term hard spot, because it wasn't really a
15 hard spot, it was just a matter of turning -- input some
16 good operator practices to recover from a difficulty that I
17 got into which I did. And then take care of the difficulty
18 later on, that's specifically with the formatting of that
19 section of the procedure for shutdown cooling.

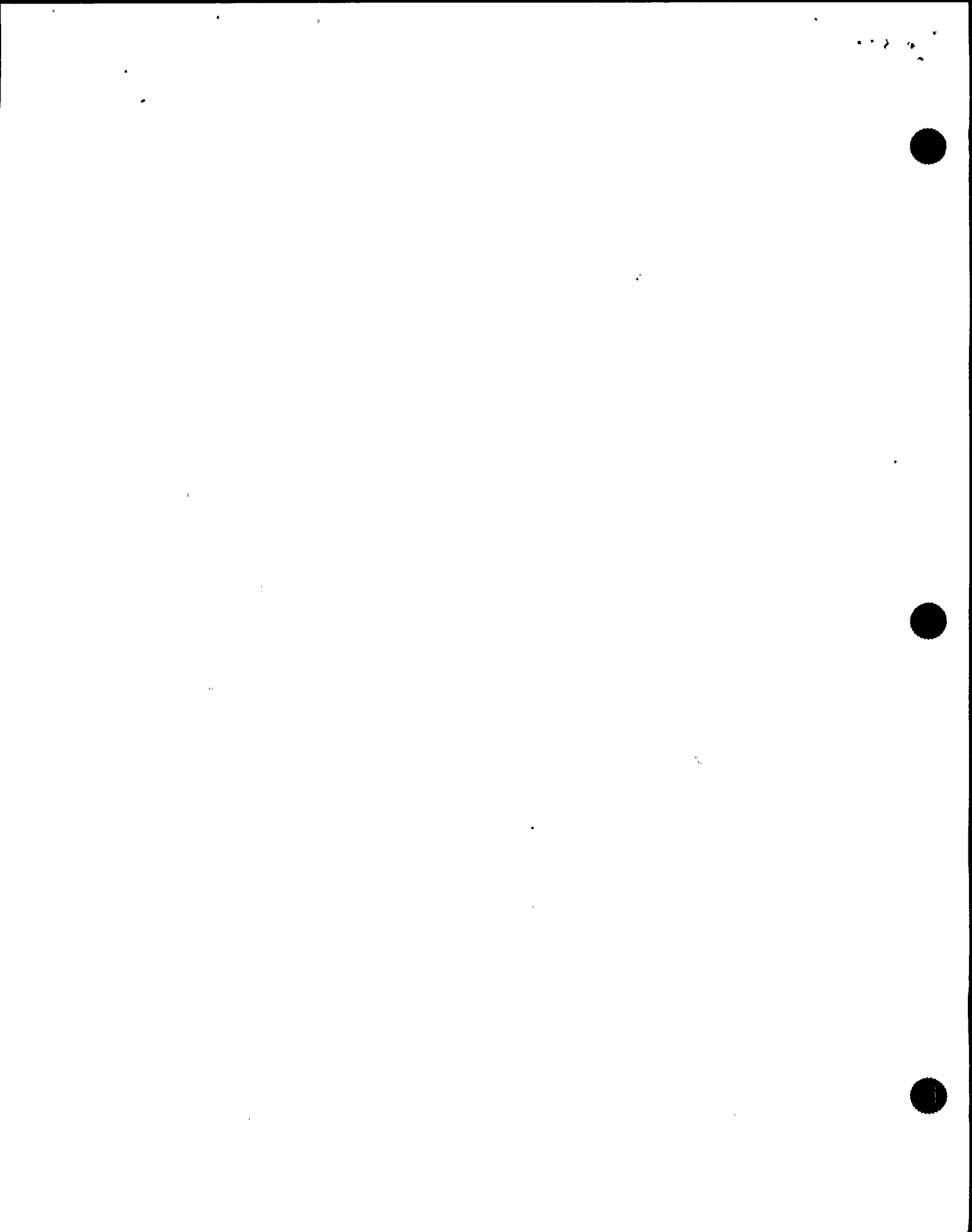
20 MR. KAUFFMAN: Okay. Good. We're off the record.

21 [Whereupon, at 7:10 p.m., the taking of the
22 interview was concluded.]

23

24

25



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: In re of CLINT SMITH

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.



IAN ROTHROCK

Official Reporter
Ann Riley & Associates, Ltd.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 311



OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission
Incident Investigation Team

Title: Nine Mile Point Nuclear Power Plant
Interview of: CLINT SMITH

Docket No.

LOCATION: Scriba, New York

DATE: Thursday, August 22, 1991

PAGES: 1 - 18

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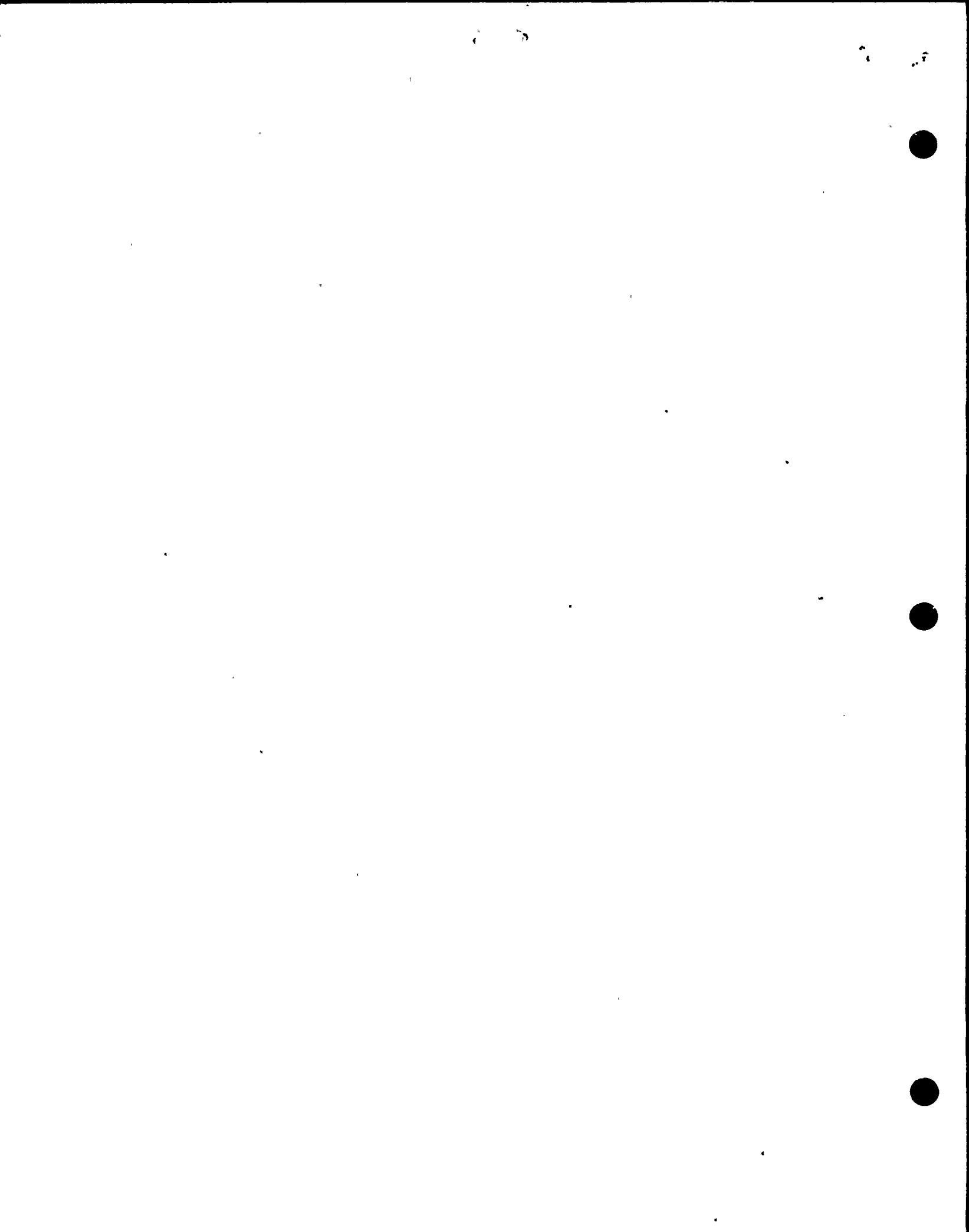


Exhibit 3-1 (continued)

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ADDENDUM TO INTERVIEW OF

Clint Smith

(Name/Position)

Page

Line

Correction and Reason for Correction

No Changes

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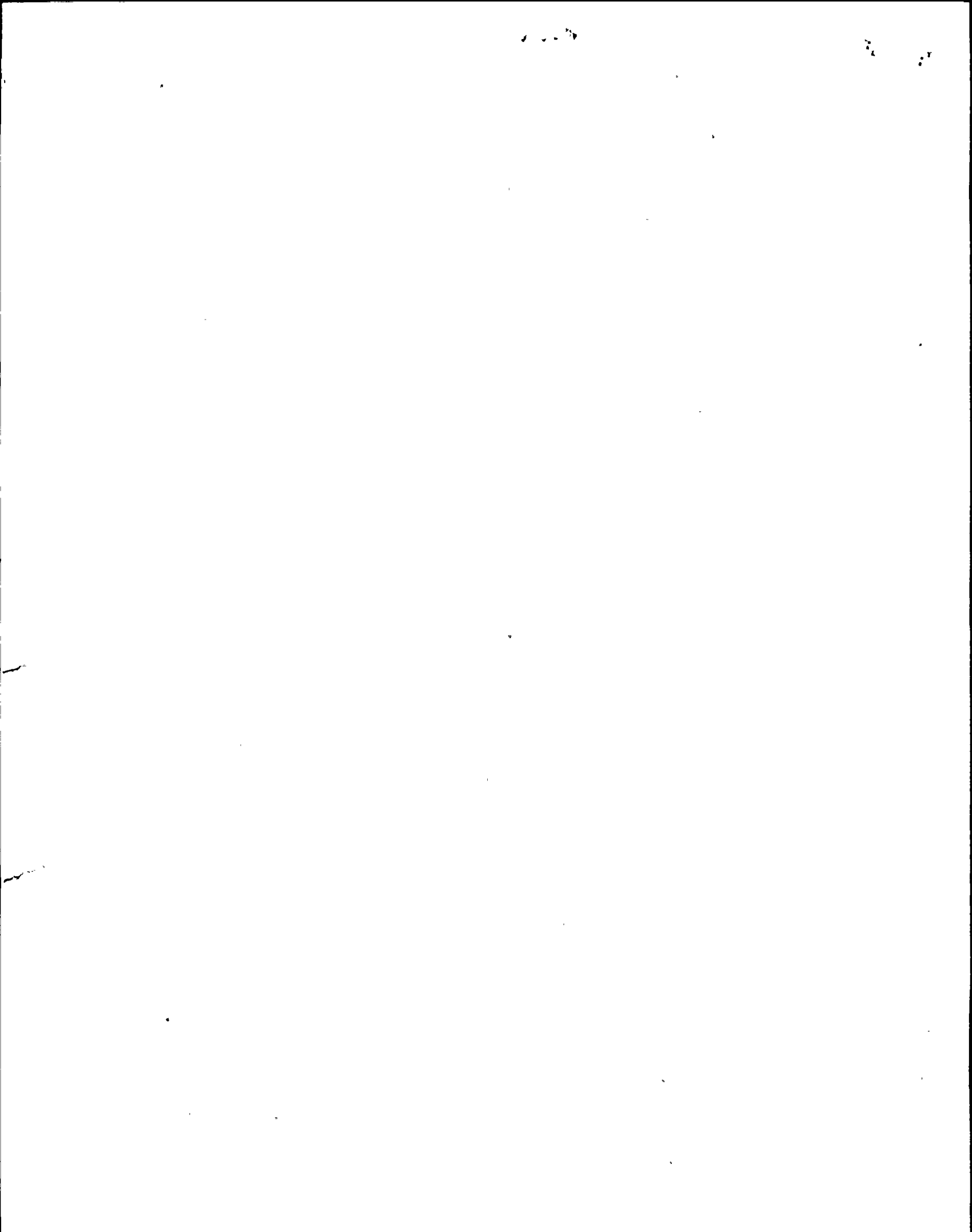
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Signature

Clint Smith

Date

8/26/91



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
INCIDENT INVESTIGATION TEAM

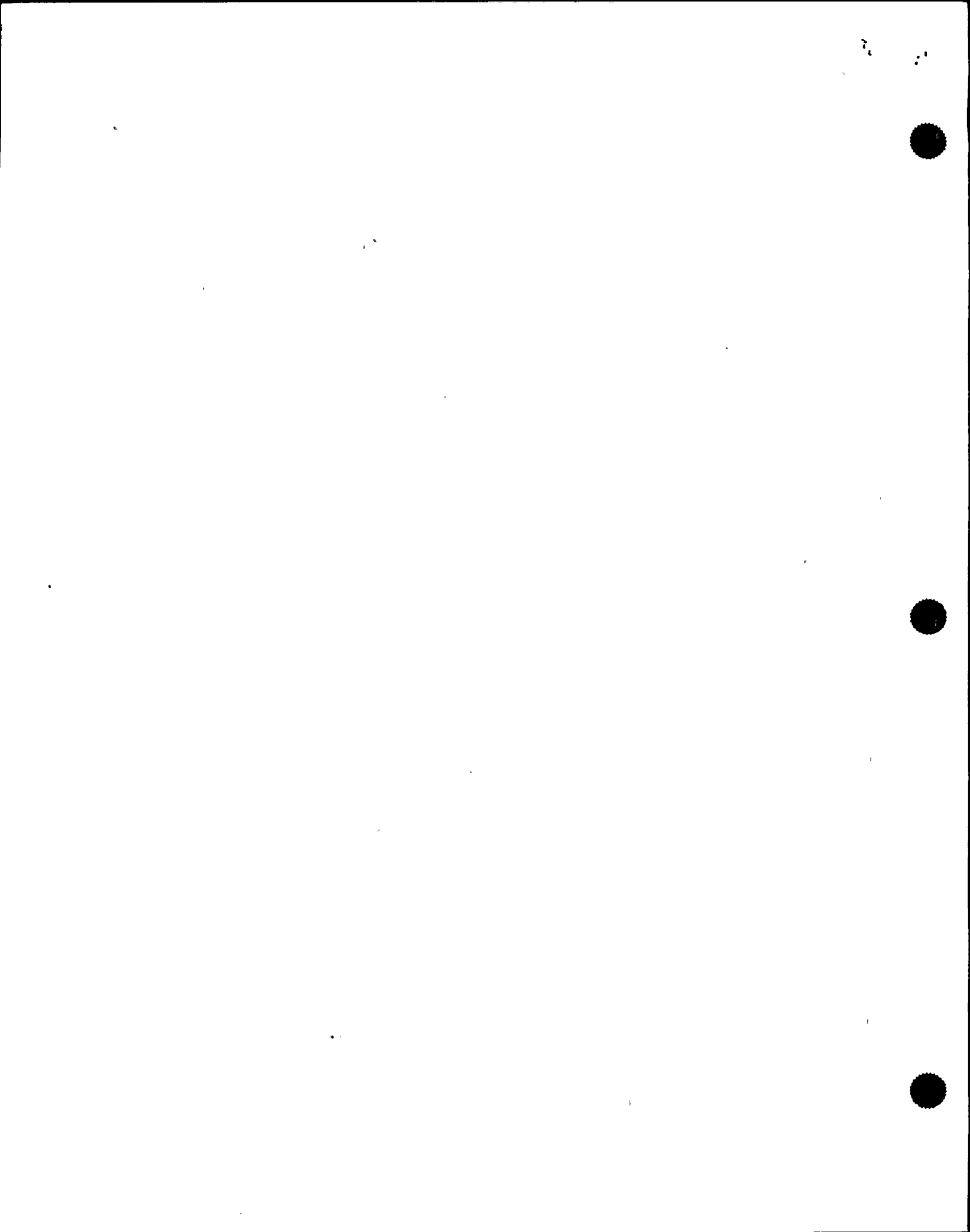
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Interview of :
CLINT SMITH :
(Closed) :
- - - - -

Conference Room A
Administration Building
Nine Mile Point Nuclear
Power Plant, Unit Two
Lake Road
Scriba, New York 13093
Thursday, August 22, 1991

The interview commenced, pursuant to notice,
at 6:44 p.m.

PRESENT FOR THE IIT:
John Kauffman, NRC
William Vatter, INPO



P R O C E E D I N G S

[6:44 p.m.]

1
2
3 MR. KAUFFMAN: We're at the Nine Mile Point, Unit
4 Two, P Admin Building. The date is August 22nd, the time is
5 approximately 6:45 in the evening. And we're here to
6 conduct an interview concerning the Nine Mile Point Two
7 event of August 13th, 1991.

8 My name is John Kauffman. I'm out of NRC
9 headquarters.

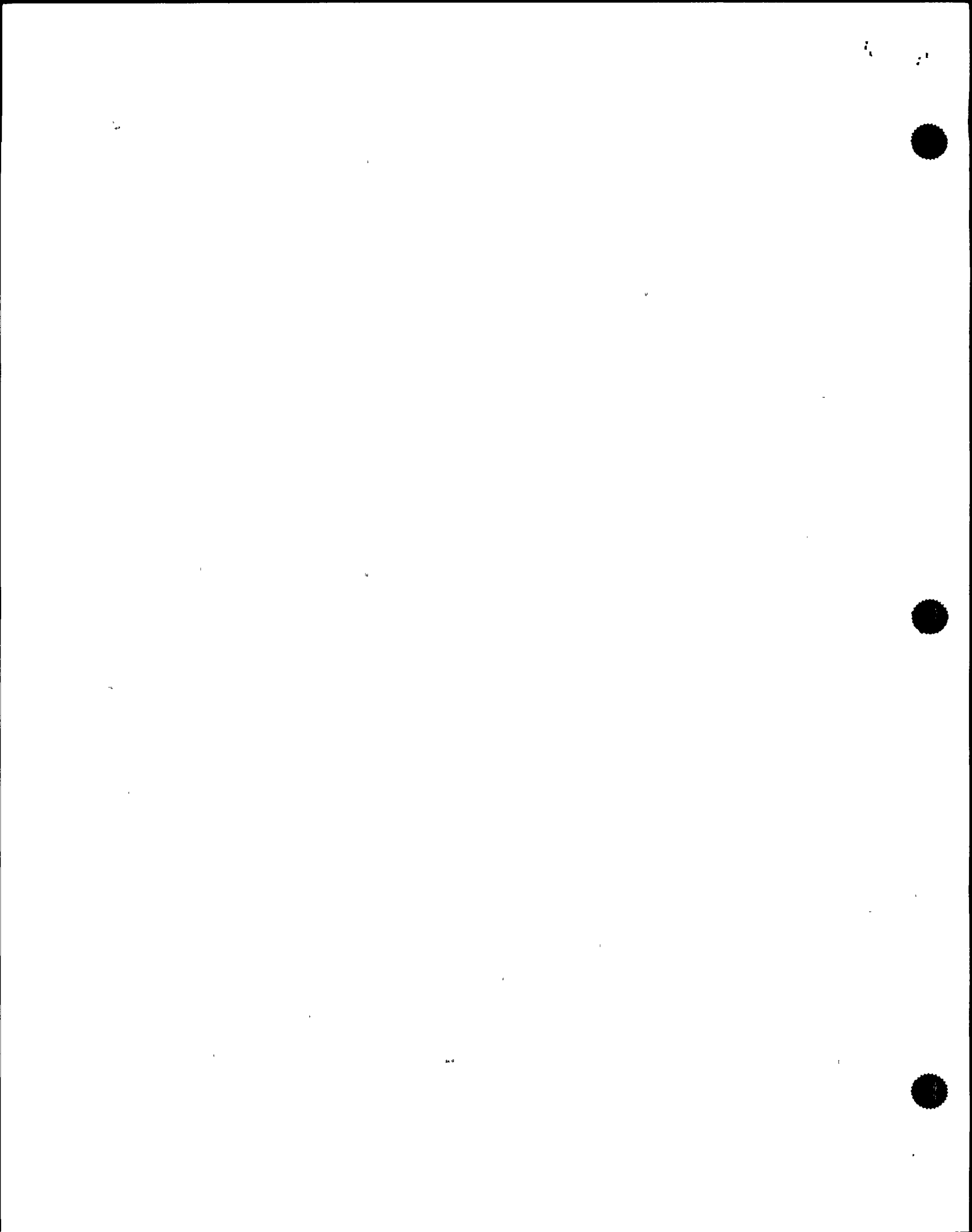
10 MR. VATTER: I'm Bill Vatter. I'm an employee of
11 INPO and I belong to the IIT.

12 MR. SMITH: My name is Clint Smith and I'm a
13 licensed nuclear reactor operator who was scheduled to work
14 swing shift that day.

15 MR. KAUFFMAN: Clint, I would like you to tell us
16 a little bit about your prior work experience and background
17 and how you came to be a licensed RO?

18 MR. SMITH: My educational background is -- I'll
19 start that, it's fairly near term. I received a BS in
20 education from Oswego State in 1972. I went through a
21 variety of jobs in technical sales areas until 1983. I
22 worked temporary during the outage at FitzPatrick in '83 as
23 a security person. I was hired on here in 1985 as an
24 auxiliary operator.

25 I performed the normal duties of an auxiliary

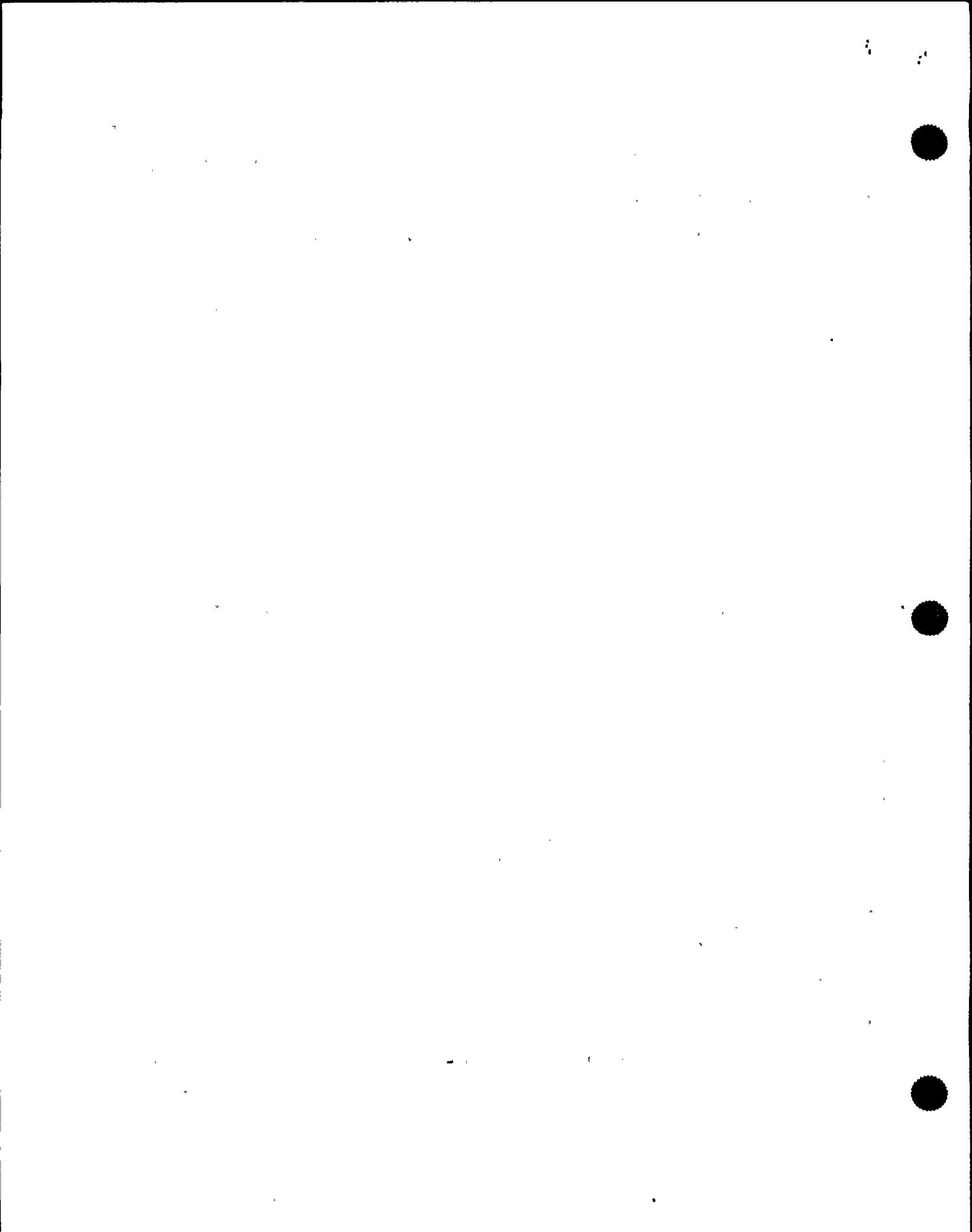


1 operator until 1989 in which time I went to license class
2 and completed the license class in August of 1990, a year
3 ago. And received my license in October of last year. And
4 started performing licensed duties at that time.

5 MR. KAUFFMAN: Okay. Good. I'd like you to walk
6 us through what you did and what you saw associated from
7 that event?

8 MR. SMITH: All right. To give you a little
9 background on where I was coming into the event. I was
10 scheduled to work swing shift that day from 2:30 to 10:30.
11 However, I was lacking in some training that was required
12 and I went to the training center at 7:00 a.m. that morning.
13 And by then enough had occurred that it was pretty evident
14 to anybody that was driving up and down the road that
15 something was going on. When I got to the training center
16 I inquired of some people and found out some brief
17 background and it was fairly accurate information that we
18 had had a transformer problem and some loss of power in the
19 control room. However, the plant was shut down and
20 apparently cooling down in a normal fashion.

21 I went ahead and took care of the training that I
22 had gone to the training center for and along about 9:30 or
23 10 o'clock I called the control room and asked if they
24 needed my assistance and they felt that probably later in
25 the day they would need more people to relieve the people



1 who are already there.

2 MR. KAUFFMAN: Okay.

3 MR. SMITH: So I went on home and I was in the
4 control room at 2 o'clock.

5 MR. KAUFFMAN: And when you got in the control
6 room what were you asked to do?

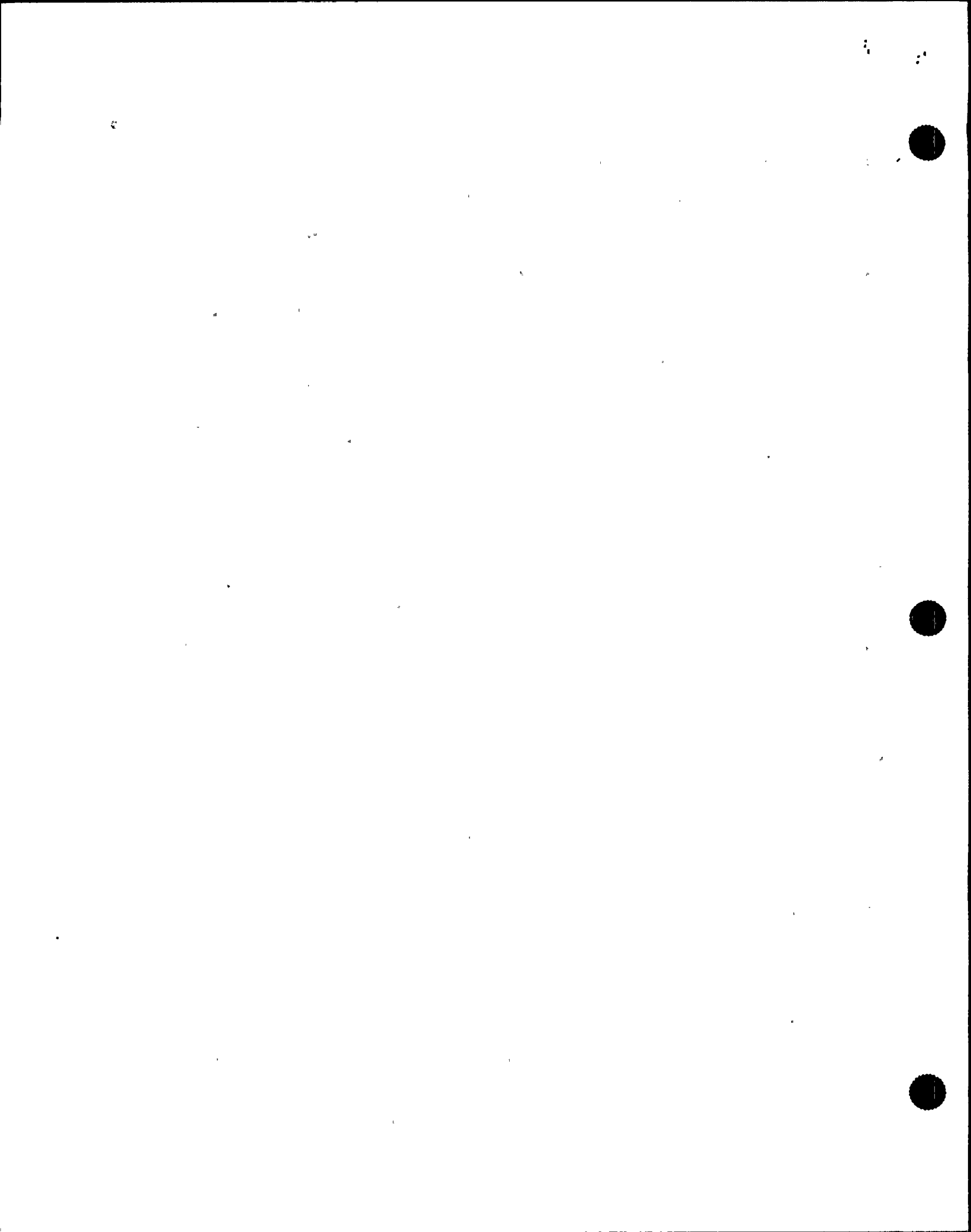
7 MR. SMITH: Okay. When I got in the control room
8 I kind of stood back a little bit to try to see what was
9 going on, what conditions were, who was working on what; to
10 get as much of a turnover of information as I could from
11 the people -- even though we weren't doing it as formally
12 that day --

13 MR. KAUFFMAN: You weren't turning over to take
14 the shift, you were just learning what was going on?

15 MR. SMITH: Correct.

16 MR. KAUFFMAN: So you could help?

17 MR. SMITH: Correct. And then I was asked to
18 relieve Brian Moore at panel 601 who was in the process of
19 establishing shutdown cooling through the B loop of RHS.
20 Brian walked me through the procedure as far as -- from the
21 beginning of the portion regarding shutdown cooling and up
22 to the point that he was at. He filled me in on any
23 problems that they may have experienced and at that point
24 consented to stay on to help out. He was going to go home,
25 but he decided to stay on. And at that time of the day



1 there were people who were going, so it was kind of nice to
2 have somebody stay on who had been there for a while.
3 Especially with the -- the setting up of shutdown cooling
4 because it's not something that you do everyday. It's nice
5 to have somebody with a little experience with it.

6 MR. VATTER: Do you know why he changed his mind
7 to stay on? You say he had planned to go home?

8 MR. SMITH: No. I don't know why. He stated to
9 me -- he stated to me, Bill, that he didn't want to leave me
10 with the responsibilities of, you know, trying to bring on
11 shutdown cooling by myself.

12 MR. VATTER: Okay.

13 MR. SMITH: Brian and I had worked on shift
14 together previously and he's been licensed longer than I and
15 he tends to kind of help out that way.

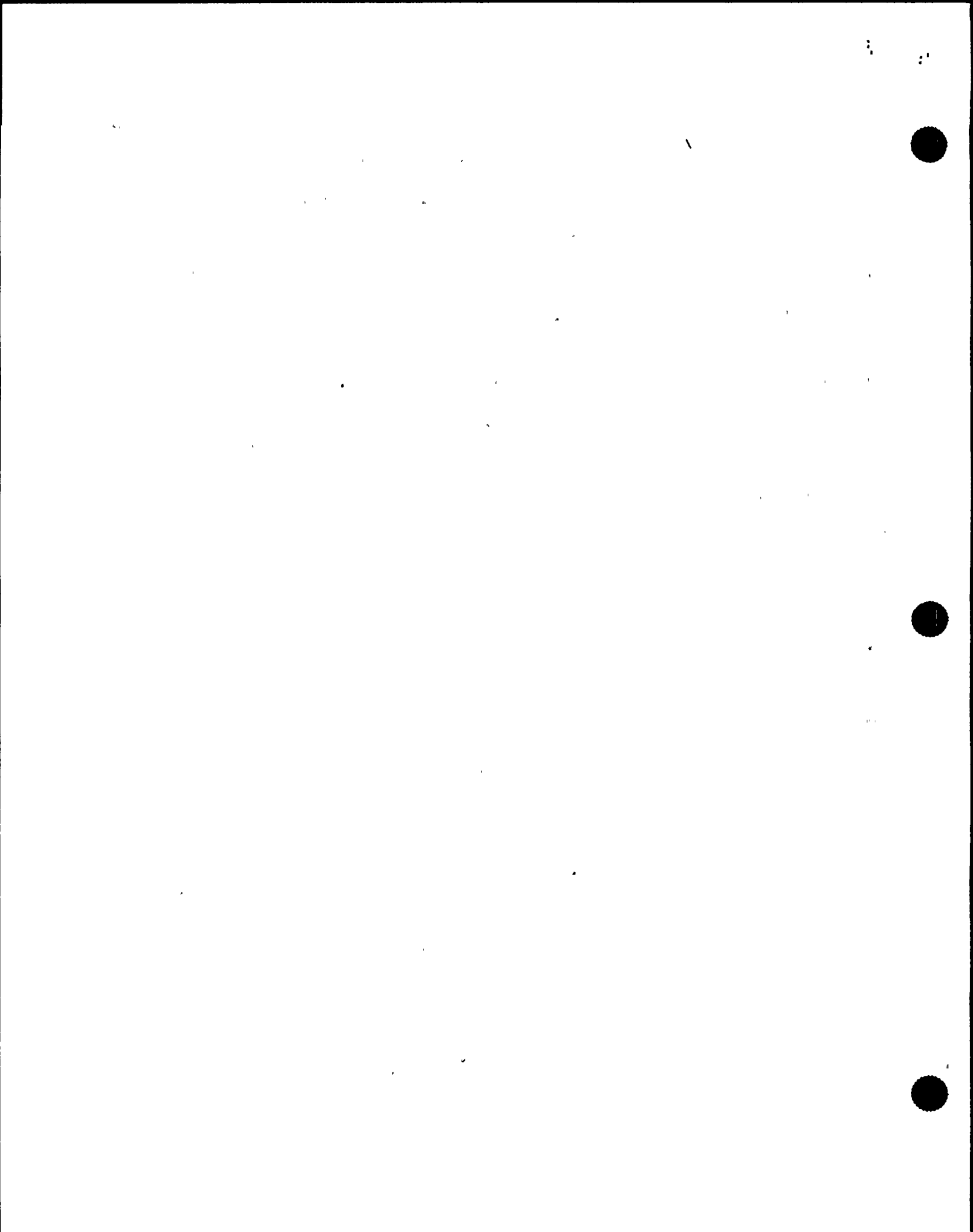
16 MR. VATTER: It's good to get along with people
17 like that. That's fine.

18 MR. KAUFFMAN: It's good not to take something
19 over in the middle like that sometimes.

20 MR. VATTER: Work together for a while until you
21 get a feel for it.

22 MR. SMITH: Well, Brian is a good team player.
23 And if I were to speculate, that was the reason that he
24 stayed.

25 MR. KAUFFMAN: Okay. And then he assisted you or



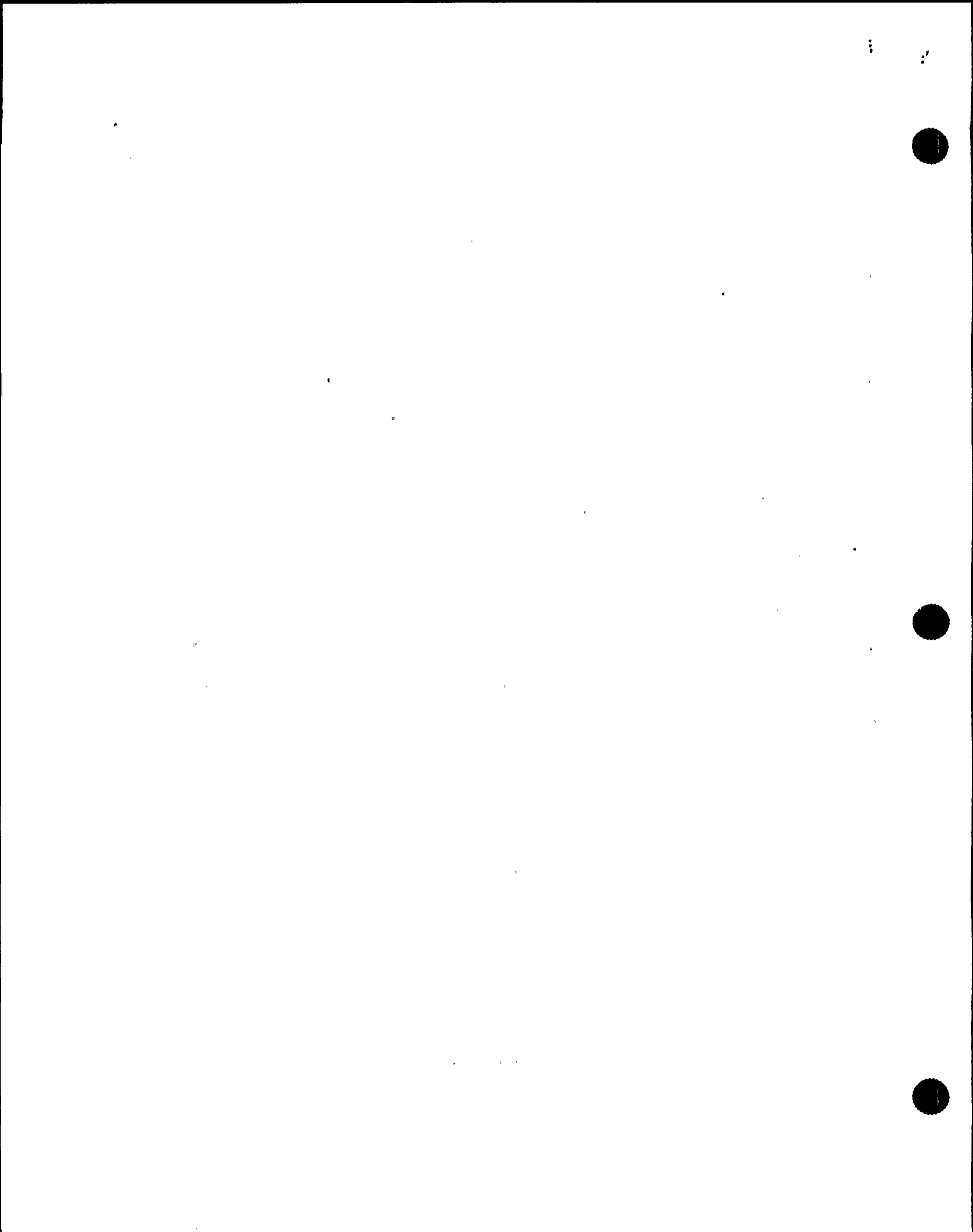
1 you assisted him, but you continued to shutdown cooling?

2 MR. SMITH: Correct. I took primary
3 responsibility of establishing shutdown cooling from the
4 point at which Brian had taken it to. He assisted me at
5 panel 601. I was principally involved with the RHS portion.
6 Brian was involved with incidentals, you know, marking
7 temperatures on temperature recorder, noting times as
8 required by startup. When we start shutdown cooling, we
9 have no min flow protection and we have to establish flow
10 within a 15 second time period. And I relied on Brian to
11 say, hey, give me a countdown on the watch. I'm watching
12 amps and trying to get this valve opened. That's mainly
13 where he was.

14 MR. KAUFFMAN: Okay. How did it go when you doing
15 shutdown cooling? Any problems or did it all go real
16 smooth?

17 MR. SMITH: It went fairly smooth. I don't --
18 like I said, you don't put shutdown cooling on that often
19 and other than having done it in the simulator I don't have
20 a lot of experience with shutdown cooling. So it was a
21 challenge to me. But I felt confident that I could do it
22 as long as I followed the procedure and just moved along
23 slowly which we could do under the circumstances and make
24 sure that everything was done correctly.

25 MR. KAUFFMAN: Did you take over from Brian after



1 he had done some of the flushing portion or --

2 MR. SMITH: Yes. Brian had flushed on the
3 discharge side of the pump the line up from that basically
4 is from the vessel back through the discharge piping and
5 then through a flush line to rad waste. And then we picked
6 up and they had started just before I took over for Brian,
7 they had started warming up the suction side and had
8 experienced some level control problems and they had stopped
9 at that point and backed up, got leveled a little bit higher
10 in the band from where they had originally started it so
11 that when they lost level, which they would naturally
12 anticipate, because you're opening up the isolation valves
13 for the loop.

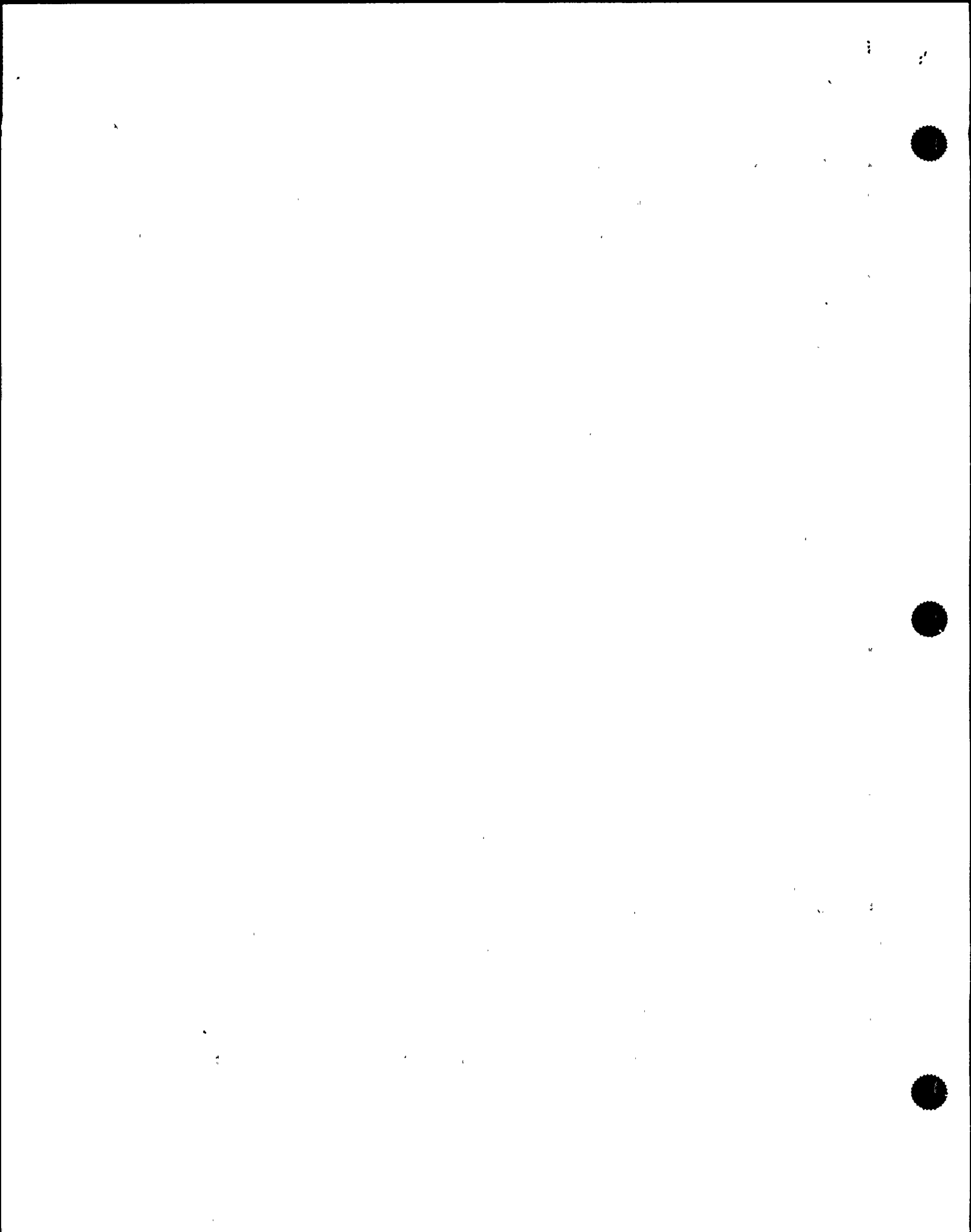
14 That's where I took over and we brought on our
15 flush, again, through the suction piping through the pump
16 and then over to rad waste and had not problem with level at
17 that time.

18 When we had the temperatures that we required to
19 be able to start the pump, then we went ahead and did that.

20 MR. VATTER: You said you had some level
21 perturbations, did I characterize that right? Level
22 fluctuations? I don't recall the exact words you used.

23 MR. KAUFFMAN: I think he said earlier on, the
24 previous group did.

25 MR. SMITH: Yeah. I didn't have that problem.



1 That had occurred in one of the last steps that Brian was
2 doing prior to my relieving him.

3 MR. VATTER: Do you recall him telling you what
4 step it was that he was having that problem with?

5 MR. SMITH: It was at the point where we were
6 opening MOV-113 which is the upward isolation valve for
7 shutdown cooling and it's a pretty good sized diameter pipe.
8 You're getting a pretty good flow out of the reactor vessel
9 at that time.

10 MR. VATTER: So, maybe there were some voids in
11 that RHR pipe that the water was rushing in to fill? Could
12 that be why they had trouble?

13 MR. SMITH: I'd have to answer that speculatively.
14 I don't know about it.

15 MR. VATTER: Okay. I understand that. I'm
16 asking you to tell me something that you wouldn't know.

17 The suction piping comes out of the bottom of the
18 vessel, is that right, RHR?

19 MR. SMITH: It comes off from the -- yeah, you
20 could call it the bottom of the vessel. It comes off from
21 the recirc loop. And that takes suction off the bottom.

22 MR. VATTER: Okay. And the flush that you're
23 talking about was water from the reactor vessel?

24 MR. SMITH: That's correct.

25 MR. VATTER: Through the RHR piping to rad waste?



1 MR. SMITH: That's correct.

2 MR. VATTER: So you got the old stagnant water out
3 of there at the same time you were getting the piping all
4 warmed up?

5 MR. SMITH: That's correct.

6 MR. KAUFFMAN: Did Brian tell you of any other
7 problems he encountered? In our interviews we've heard
8 there was some water hammer in RHR when they were doing the
9 flush and draining water to rad waste, did he mention that
10 or talk about that?

11 MR. SMITH: That was mentioned as an aside. We
12 never focused on it. And I got the feeling that it was
13 something that had happened prior to my getting there and
14 whatever it was, it had been either resolved or understood
15 and corrected and I -- I didn't pursue it and it was just --
16 you know, it was an aside.

17 MR. KAUFFMAN: Okay. So you went on and you got
18 shutdown cooling on?

19 MR. SMITH: Correct.

20 MR. KAUFFMAN: And then what activities were you
21 involved in?

22 MR. SMITH: Once you put shutdown cooling on it's
23 paramount that you monitor the system and control cooldown
24 rate on the vessel. We did have some minor problems with
25 cooldown in that we approached a rather large cool down



1 rate.

2 MR. KAUFFMAN: In the 100 degree an hour --

3 MR. SMITH: 100 degree an hour cooldown rate is
4 our tech spec limit. We were approaching that. And I --

5 MR. KAUFFMAN: Was there a reason for that? How
6 did that happen?

7 MR. SMITH: I think that it was due to my lack of
8 experience with putting it on. And I had other people
9 standing there who had background in it and experience --
10 management people who have experience with the system who
11 were helping me -- overseeing what I was doing and saying
12 okay, we've got to do this -- it would be best probably to
13 watch this; there was discussion about the amount of service
14 water flow rate that we should have at the front end through
15 the heat exchanger. And we were -- I think it was just a
16 matter of developing a feel for the flows and how much we
17 had.

18 See, we were throttling through the shutdown
19 cooling discharge valve, that would be MOV-40 Bravo and
20 throttling through the service water outlet from the heat
21 exchanger. We were trying to balance the flows so that we
22 were meeting flow requirements and meeting cooldown
23 requirements.

24 And you know, we were dealing with a couple of
25 parameters up and down and counterbalancing each other. It



1 was a matter of just balancing out flows to get the cooldown
2 that we needed.

3 At one point we arrested the cooldown and I think
4 we stood still for about 45 minutes to just let things
5 settle out. And to be sure that we didn't walk ourselves
6 into anything further.

7 MR. KAUFFMAN: Was somebody plotting cooldown
8 during this evolution?

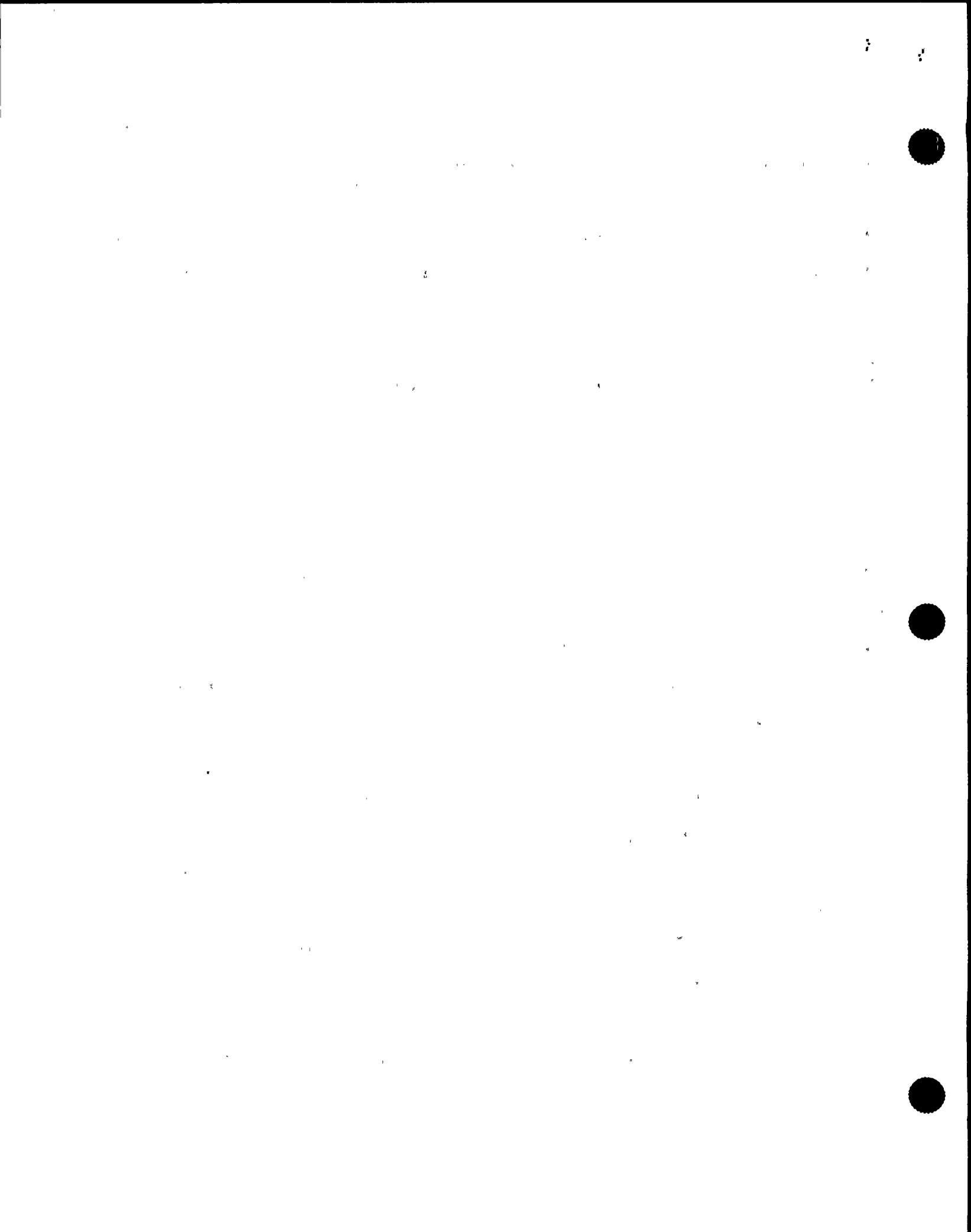
9 MR. SMITH: Yes.

10 MR. KAUFFMAN: And they were aware all along of
11 what the cooldown rate was?

12 MR. SMITH: Yes. We had excellent communications
13 on that. We established -- immediately when we start
14 cooldown we establish -- or when we shut down, we establish
15 a procedure that tracks cooldown and I believe that at the
16 time that we established shutdown cooling we were tracking
17 it every five minutes and so we were aware of it.

18 And it quickly -- our cooldown rate quickly jumped
19 and we quickly go hold of it and brought it back. And then
20 we settled things down to just kind of let things -- I think
21 it's natural for you, if you're not in an emergency
22 situation to back out, let things settle out a little bit
23 and then try to re-approach it again, to do it in a more
24 controlled fashion.

25 MR. KAUFFMAN: Sure. In some of the previous



1 interviews we heard that people were plotting it every five
2 minutes, but the form for evidently calculating the cool
3 down rate as you multiply whatever your cooldown rate is for
4 15 minutes by 40, it's your hourly cooldown rate and
5 somebody was taking it -- since you were taking it every
6 five minutes and then multiply it by four, that really gave
7 you a cooldown rate for 20 minutes rather than --

8 MR. SMITH: Right.

9 MR. KAUFFMAN: -- an hour or so. There was some
10 confusion there.

11 MR. SMITH: I'm not aware that that happened.
12 It's possible that could have happened aside to the
13 communications to me and that it was corrected.

14 MR. KAUFFMAN: Okay.

15 MR. SMITH: There were -- you know, there were a
16 number of people that were watching it.

17 MR. KAUFFMAN: By number, do you mean two, four,
18 ten, 15, just make an estimate?

19 MR. SMITH: Four to six. We had the SSS, another
20 operations manager who was kind of overseeing what was going
21 on on panel 601. The fellow that was -- the operator that
22 was taking the data, myself, he was reporting to me on a
23 very regular basis, the CSO, six anyway. Yeah.

24 MR. KAUFFMAN: Do you have any more questions
25 about shutdown cooling?



1 MR. VATTER: No.

2 MR. KAUFFMAN: Were you involved in any more
3 activities during the shift?

4 MR. SMITH: No. I was focused principally on
5 shutdown cooling from the time that I took over from Brian
6 until we got to cold shutdown. I tried to undergo some of
7 the normal shift routine, as normal as a routine as you can
8 establish after a day like that.

9 MR. KAUFFMAN: And then about what time did you
10 get relieved?

11 MR. SMITH: Well, I went home at 10:30.

12 MR. KAUFFMAN: That's a long day.

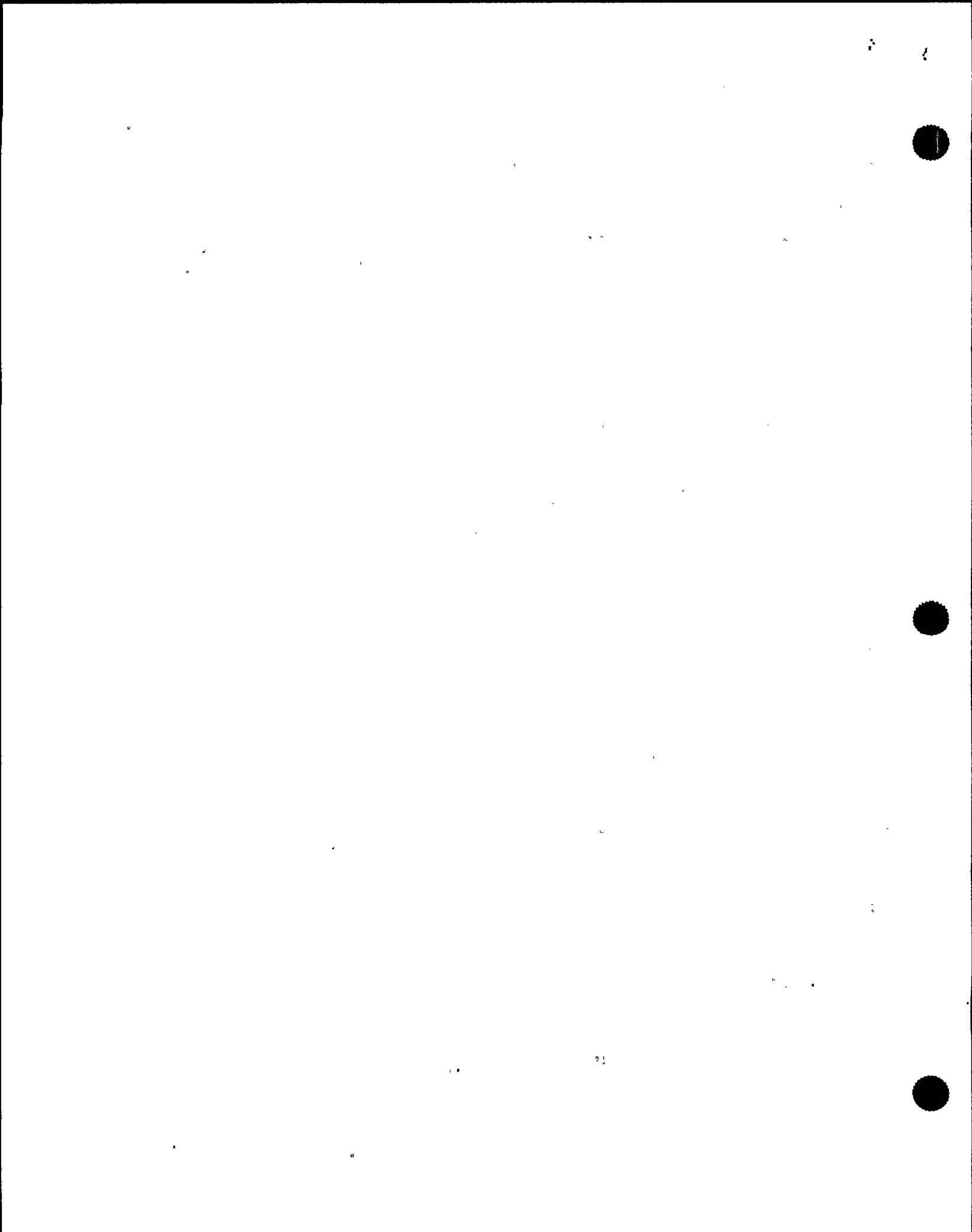
13 [Pause.]

14 MR. SMITH: Once we had our cooldown established
15 so it was real low and we were in cold shutdown and the
16 event had been declared over, we got into more routine
17 things and more OP-101-Charlie shutdown stuff. OP-101-C,
18 thinking about inerting the containment and so forth and as
19 well as doing shift checks and daily checks and so forth.

20 MR. KAUFFMAN: Bill, do you have any more
21 technical questions?

22 MR. VATTER: I'm not sure that I understand the
23 problem with that valve that was supposed to open going to
24 rad waste.

25 MR. SMITH: I'm not sure I understand your



1 question. Maybe you've misunderstood something that I
2 indicated if you could backup and clarify that a little
3 bit, maybe I can --

4 MR. VATTER: Well, we heard that there was trouble
5 getting the valve opened? Either that, or when it went open
6 it went open all the way instead of throttled, of let water
7 down to rad waste from RHR?

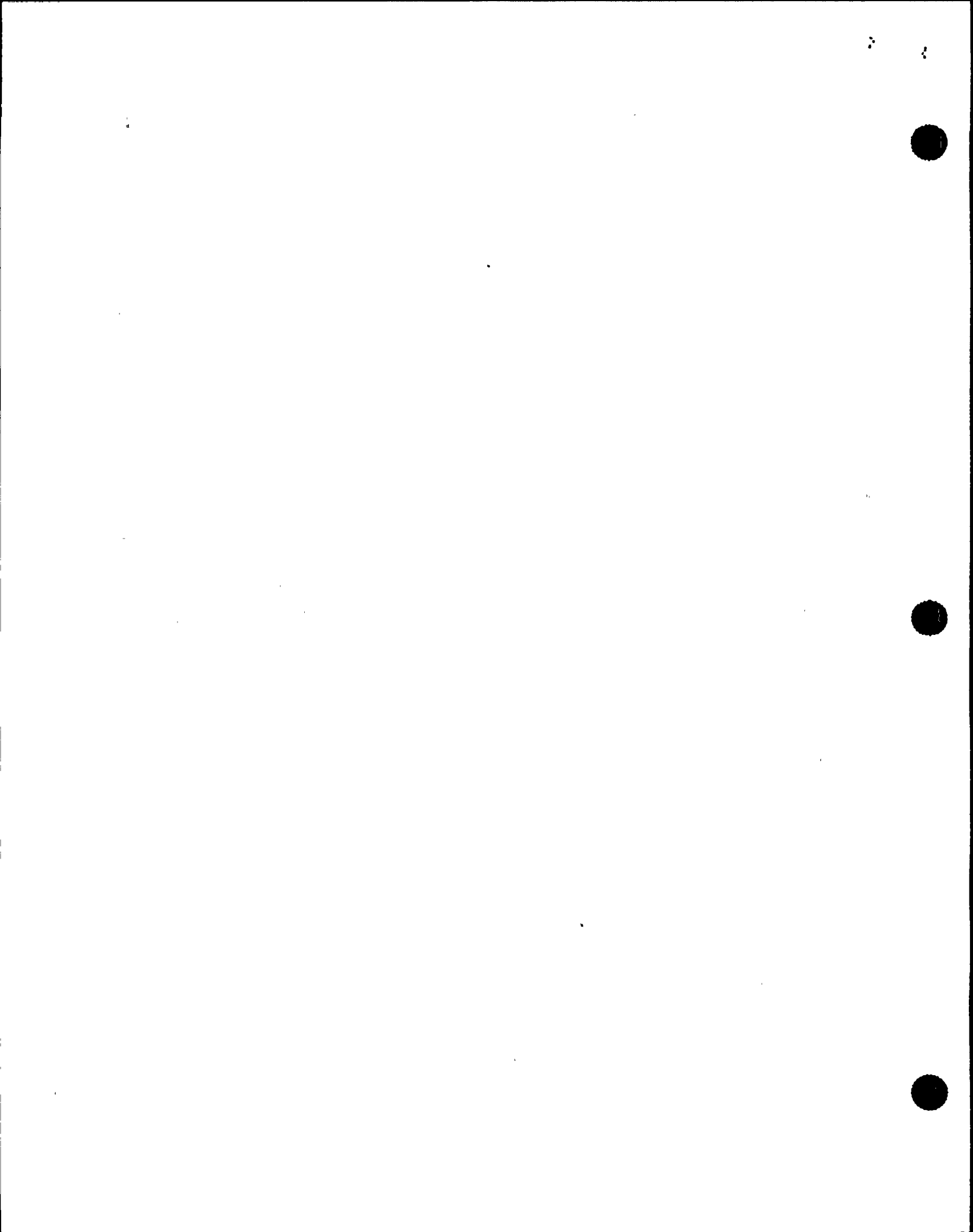
8 MR. SMITH: We have --

9 MR. VATTER: And I really don't any more about it
10 --

11 MR. SMITH: From a human factor standpoint we have
12 a difficulty with reject because we don't have any
13 indication of how much we're rejecting. That's a double
14 isolation path with an MOV gate valve followed by an MOV
15 throttle valve -- the throttle valve has no indication of
16 position and no indication of flow. And we use that for
17 level control and it also dictates the amount of service
18 water flow for cooling because we have a limit on the
19 temperature of water that can be rejected to rad waste
20 because of the fiberglass tanks down there, we cannot exceed
21 180 and we have a procedural limit not to exceed 150.

22 Because of the lack of flow indication or position
23 indication on the valve, we're not sure just exactly how
24 much flow we have there.

25 [Pause to answer door.]



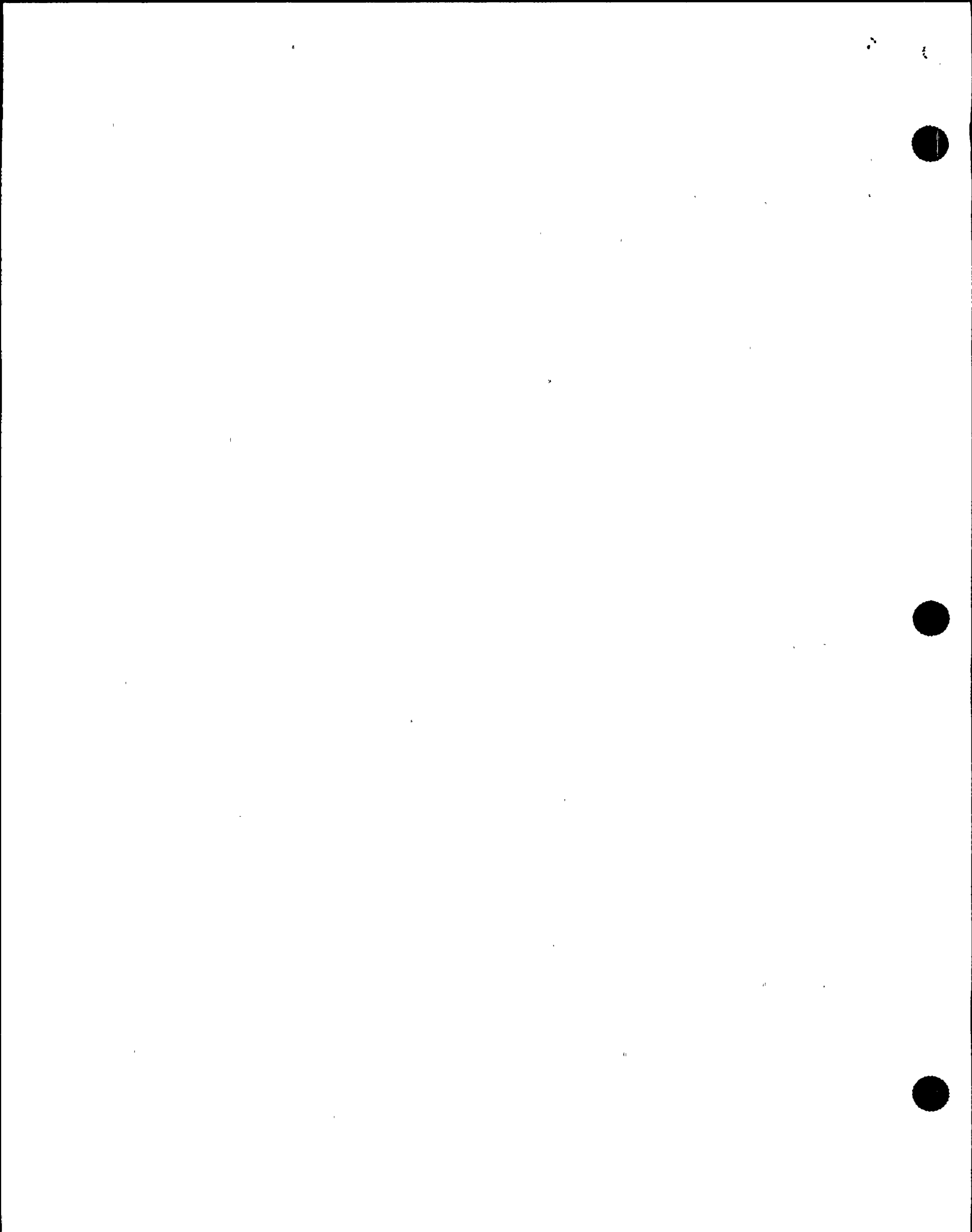
1 MR. VATTER: So were there any problems with
2 controlling that flow to rad waste? Like, for example, when
3 you opened the valve you got it too far opened and too much
4 water got away from you for a while? I'm not suggesting
5 that that happened, but I'm trying to characterize the kind
6 of thing that --

7 MR. SMITH: Bill, I wouldn't answer that by saying
8 that too much water got away from us. It was a third
9 component in the control function. We're trying to control
10 cooldown rate. We're trying to control the temperature
11 that's going to rad waste, cooldown rate is first, it's a
12 tech spec limit. But by the same token you want to pay
13 attention to not damage equipment. Specifically the
14 fiberglass and rad waste.

15 So, instead of being a two function thing where
16 you're controlling service water and the flow rate of RHR,
17 you're also trying to control the reject flow rate. And
18 control vessel level and not get it too hot. So it's --

19 MR. VATTER: Why did you need to be rejecting
20 water to rad waste?

21 MR. SMITH: We were rejecting water because that
22 was our level control on the vessel. We had water going in
23 from CRD which we had throttled. But we didn't have cleanup
24 on. And that would be our normal reject path for
25 controlling the level or we didn't have cleanup on.



1 MR. VATTER: You needed the reject water to take
2 care of the in-flow from CRD?

3 MR. SMITH: That's correct. But we were also
4 throttling down.

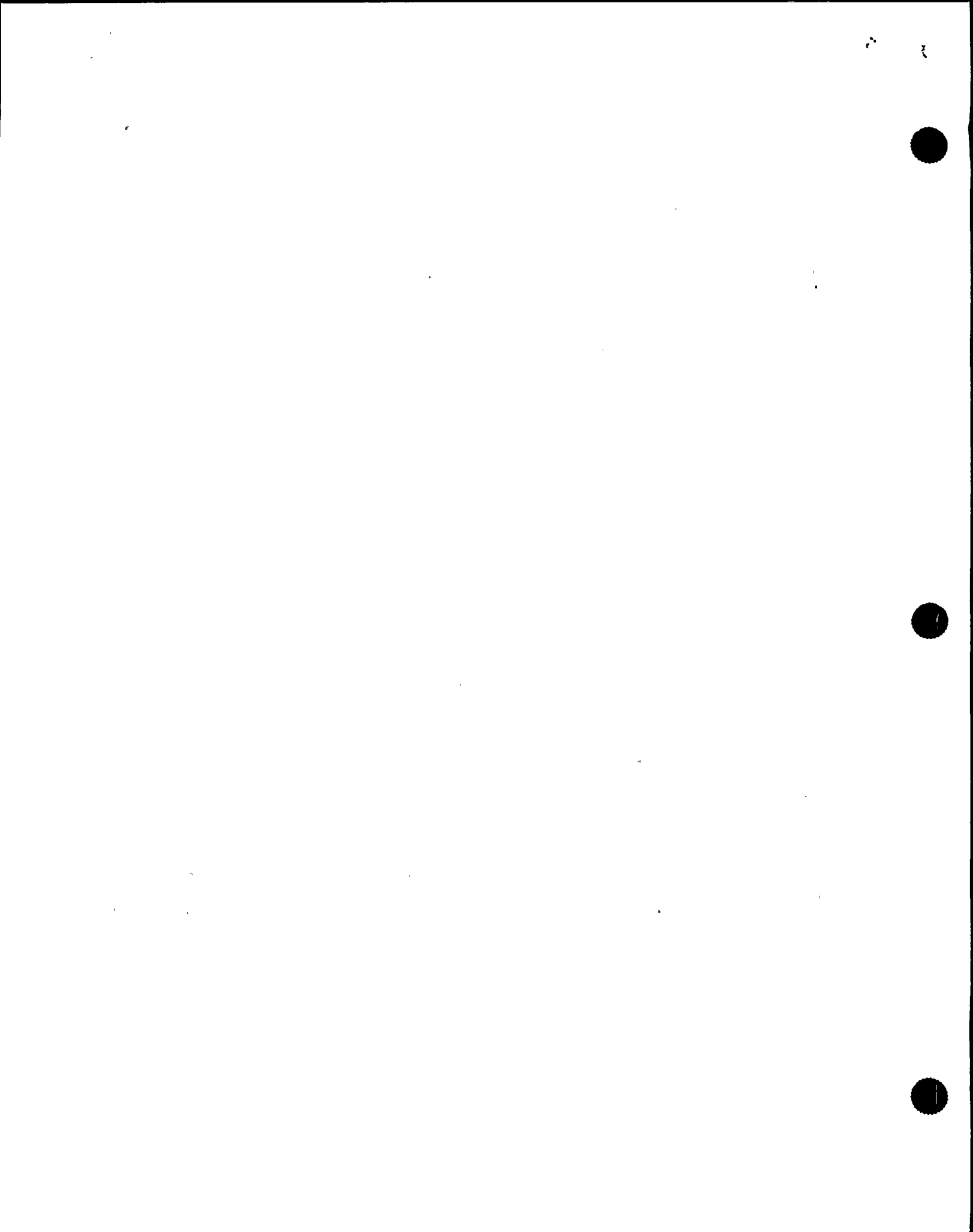
5 MR. VATTER: But you weren't feeding with
6 condensate or anything?

7 MR. SMITH: Not while I was running shutdown
8 cooling. We were not feeding with condensate.

9 MR. VATTER: Okay. I understand that.

10 MR. KAUFFMAN: Well, if you don't have any more
11 technical questions -- we ask a question and it's kind of a
12 lessons learned question and it's -- when you think back on
13 the event and your participation in it and all the
14 activities you did, maybe some things went well and you're
15 really glad that was there and maybe other people at other
16 plants could learn from that and have that there. A very
17 minor example would be a valve wrench at a valve you needed
18 to go operate, you go out there and it's there and you go,
19 boy, I'm glad somebody was smart enough in thinking ahead to
20 put that there. Conversely you maybe had to go to that
21 valve and the valve wrench wasn't there and you said, well,
22 gee, somebody needs to make sure that next time the valve
23 wrench is there.

24 So, are there any things, either good or bad, that
25 occurred to you as this event -- things that you're really



1 glad were there, things that could be better, could be
2 fixed?

3 MR. SMITH: The only thing that I can think of and
4 that was identified at the time was that perhaps the RHS
5 procedure could have flowed better for establishment of
6 shutdown cooling. We have addressed that. We addressed it
7 at the time that we witnessed a rapid cool down rate. It
8 was because of sequencing of procedural steps which could
9 have been better organized, I felt, to make it easier to
10 bring it on.

11 [Asides.]

12 MR. KAUFFMAN: We're back on the record.

13 MR. SMITH: That was discussed at the time that we
14 had the difficulty between myself and the operations
15 management person that was there.

16 MR. KAUFFMAN: Were there any particular sections
17 that you felt were -- were -- presented the big problems or
18 --

19 MR. SMITH: I think we had too much service water
20 flow to begin with. That caused us to be cooling faster
21 than we wanted to be. I, of course, having not brought
22 shutdown cooling on before didn't have a feel for what kind
23 of cool down rate I was even going to see. And I think that
24 we could reformat slightly that section of the procedure and
25 probably clean up the directions of how to establish the



1 flow or how much flow to be established to make it easier
2 for the next guy to bring it on.

3 MR. KAUFFMAN: Okay.

4 MR. SMITH: And from my standpoint that's the
5 only thing that I've been able to think of since then that
6 would have made things better.

7 MR. KAUFFMAN: Okay. Last question we normally
8 ask is -- and we've been asking all the questions, if
9 there's anything we didn't talk about or missed that you
10 want to talk about or think that it's important, it's your
11 opportunity.

12 MR. SMITH: I think we just discussed that. The
13 only thing that was a hard spot for me and I guess I
14 shouldn't use the term hard spot, because it wasn't really a
15 hard spot, it was just a matter of turning -- input some
16 good operator practices to recover from a difficulty that I
17 got into which I did. And then take care of the difficulty
18 later on, that's specifically with the formatting of that
19 section of the procedure for shutdown cooling.

20 MR. KAUFFMAN: Okay. Good. We're off the record.

21 [Whereupon, at 7:10 p.m., the taking of the
22 interview was concluded.]

23

24

25



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 CLINT SMITH

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.



IAN ROTHROCK

Official Reporter
Ann Riley & Associates, Ltd.

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