# Official Transcript of Proceedings

## **NUCLEAR REGULATORY COMMISSION**

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1-2003-051F

Location:

Salem, New Jersey

Date:

Friday, January 16, 2004

Work Order No.: NRC-1295

Pages 1-138

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4	OFFICE OF INVESTIGATIONS
5	INTERVIEW
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7	IN THE MATTER OF:
8	INTERVIEW OF: : Docket No. 1-2003-051F
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10	(CLOSED) :
11	x
12	Friday, January 16, 2004
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14	PSEG Nuclear
15	Training Center
16	Salem, NJ
17	·
18	The above-entitled interview was conducted
19	at 12:45 p.m.
20	
. 21	BEFORE:
22	Special Agent EILEEN NEFF
23	Senior Project Engineer SCOTT BARBER
24	
25	-

### P-R-O-C-E-E-D-I-N-G-S

(12:45 p.m.)

SPECIAL AGENT NEFF: Today's date is January the 16th, 2004, the time is approximately Speaking is Special Agent Eileen Neff, 12:45 p.m. U.S. NRC Region 1, Office of Investigations. present for this interview is Senior Project Engineer Scott Barber with the Division of Reactor Projects, also with Region 1. This interview will take place with | spelled?

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SPECIAL AGENT NEFF: Okay. Thank you. And the subject of the interview is the safety conscious work environment at Hope Creek you experienced being here at Hope Creek. The location of the interview is at PSEG Nuclear Training Center in Salem, New Jersey.

At this point, what I'd like to do is place you under oath. If you'd raise your right hand.

Do you swear that the testimony that you're about to provide is the truth, the whole truth and nothing but the truth, so help you God?

I do.

SPECIAL AGENT NEFF: Okay. And for the

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record, your identification, date of birth, social security.



SPECIAL AGENT NEFF: Okay. And your home



SPECIAL AGENT NEFF: Thank you. And I told you before we went on the record that you're not being approached as the subject of any investigation or any potential wrongdoing. We're talking to you for your assessment of the work environment. And as part of that in trying to define it, I was talking to you about how that would include -- our discussion would include employees' ability, including your own and management, ability to raise concerns, the nature of the concerns that you've witnessed being raised, how they were handled up the chain of command, what the response is and people's comfort level with raising, we'll say specifically, safety concerns. Part of that might be industrial safety concerns, and part of it would be nuclear safety concerns, and the focus here would be the health and safety of the public, nuclear safety.

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In addition to that, we're also looking at decision making and what goes into the decision making on the site. Is it conservative, is it appropriate, comfortable with what you've participating in? In that, the environment -- I'll qo pretty broad at first. Let me ask if you think -- do you see any strengths to the environment that you're working within. You know, I'm sorry, I'm sorry. Let me back up just a little bit, I'm sorry, because what I did was I skipped ahead to -- I didn't include your experience here. Your education experience, please.



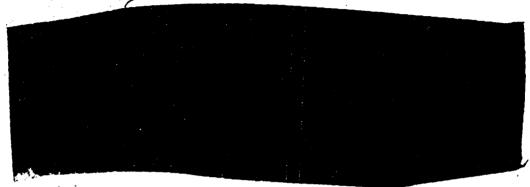
SPECIAL AGENT NEFF: So when did you leave

and when did you start with

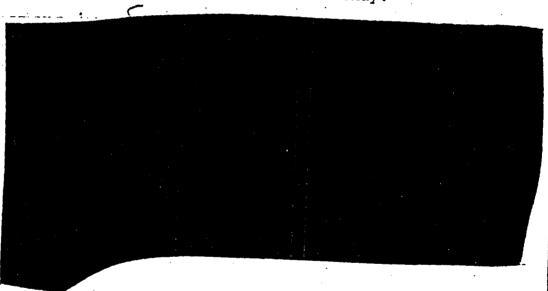
and then I went to work for for approximately a year starting in July of that year,

SPECIAL AGENT NEFF: And what position was

that?



SPECIAL AGENT NEFF:



SPECIAL AGENT NEFF: Hope Creek side?



Hope Creek side.

SPECIAL AGENT NEFF: Okay.

And then I went into the Hope Creek System So that would

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-- and then it was -- trying to think of the year I 1 It was toward the end of, 2 let's see, I guess it would have been -- yes, I 3 4 started with 5 through now? SPECIAL AGENT NEFF: 6 7 8 SPECIAL AGENT NEFF: 9 10 Correct. 11 SPECIAL AGENT NEFF: And what was your 12 13 position in 14 15 16 SR. PROJECT ENGINEER BARBER: 17 that, in 18 No -- yes, yes. 19 trying to remember the dates here. 20 21 22 SPECIAL AGENT NEFF: Pretty good on the 23 dates. 24 There's a lot of Yes. 25 dates.

When was

I'm

Who

SPECIAL AGENT NEFF: February 1, '99, 1 okay. And you were then, what, sometime in 2 3 4 5 SPECIAL AGENT NEFF: Okay. 6 7 SPECIAL AGENT NEFF: 8 Okay. Okay. 9 have been your shift supervisors? I know there are 10 OSs or Shift Managers, it's a little different title. Yes. They just went to 11 a Shift Manager title, I'm not sure when. It's been 12 Up until recently my -- when I started in 13 recent. it was 14 and transitioned to -- now, that was, on 15 16 just transitioned to 17 So for over and then from **18** (phonetic). 19 20 SPECIAL AGENT NEFF: Okay. And right now it' 21 22 SPECIAL AGENT NEFF: About a week ago or 23 24 so? 25 A week ago we did a crew

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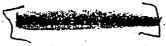
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reorganization, changed the crew complements around. So right now I remained on Charlie shift and

SPECIAL AGENT NEFF: Okay. All right. Thank you. I bypassed around and was asking you about your impressions of the work environment on site, and basically what I'd like to ask you in that time frame then let's look at the recent past, since you got to Have you noted in the work environment any particular strengths or any particular weaknesses?



Relative to?

SPECIAL AGENT NEFF: The safety conscious work environment and relative to kind of -- along the lines of what I was describing in terms of people's ability to raise concerns and how those concerns are responded to.



Right.

SPECIAL AGENT NEFF: And what you see as comfort level. And that would include personally, your subordinates as well as your own management chain.



Right. I can only speak

for Hope Creek but I've always felt I've never had an issue with personally raising a safety concern or

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never felt that any one of my crew had an issue with doing something like that. We've talked about being forthcoming with things like that. If you had a question or you had a concern to, like the union guys for example, to raise to management or even myself just to raise it for my supervision. I've never had a real concern about that; always felt pretty free to do that.

SPECIAL AGENT NEFF: You personally?

Yes. Yes.

SPECIAL AGENT NEFF: What about on the part of others? Are you aware of any hesitation on the part of others to raise a concern?

I don't know of any individuals myself that had issues or concerns like that. I really don't.

SPECIAL AGENT NEFF: When you say you talked with your crew about that, when was that?

Well, we would -- one of the things that we do is we have our shift turnover for coming on at nights or coming on in the morning, and we always start off our shift meeting with a safety message and the OS usually leads that. We're open for discussion about that, and he sometimes elaborates on it or we'll do it CRSs, you know, just

lot, especially with switching activities, cold 1 weather, just those types of things. 2 SPECIAL AGENT NEFF: Okay. 3 Ladders, you know, just 4 5 things come to mind, ladder safety, making sure that -- you know, fall protection, that type of stuff. 6 7 SPECIAL AGENT NEFF: Has anyone on your crew ever made you aware that they had a fear of 8 raising a concern, fear -- this would be at your 9 subordinate level -- a basic fear of retaliation or 10 any adverse action might be taken against them for 11 having raised a particular concern? 12 Absolutely not. ~13 SPECIAL AGENT NEFF: Okay. That's not 14 been your experience. 15 16 No. Sec. Comments ..17 SPECIAL AGENT NEFF: What about to your knowledge in terms of your peers at the level? 18 19 No, none at all. SPECIAL AGENT NEFF: Okay. And what about 20 in your management chain at your OS/AOM in that area? 21 No. I've never felt that 22 that was an issue or nobody's ever conveyed that to 23 24 me, and I've always felt, like I said, free with any of the OS staff that I could freely speak about that. 25

SR. PROJECT ENGINEER BARBER: How about the follow up to whatever issue you were raising? Do you have a perception that there was reasonable follow up or at least consideration of whatever the issue was before you got an answer? I think a lot of people may say, "Yes, I feel okay about raising an issue," but they have varying degrees of confidence on what will be done about that.

Right. Well, I think as an organization we've gotten better with that through the years. I mean I don't know if you're familiar with our daily turnover sheet but we have an entire section on that devoted to safety concerns, and the problem is identified, there's an owner, there's a due date associated with the item, notification numbers associated with it, which is what we use to identify the problems. That information is on that section of the sheet and what we're doing is like compensatory measures as well till we come to some type of final resolution on certain issues.

SR. PROJECT ENGINEER BARBER: Would it be fair to characterize those issues as issues identified by an individual kind of their own? In other words, maybe there's some discussion but they have a concern about something either they see as an indication or

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something in the plant, the way something's working?

I mean isn't that the way those kinds of things come
up?

That's correct. For example, our diesel generators. We have CO leaks or have had CO leaks in the past and there have been some concerns and issues associated with those problems, and we've addressed those. Engineering's gotten involved, Maintenance has gotten involved, and we have gotten those leaks repaired, and every time we do a diesel run, a normal monthly surveillance run, for example, we'll have Loss Prevention right there monitoring the atmosphere, the breathable atmosphere in the room. And one of the things on another -along the same lines is we'll -- we try and minimize the amount of people in the diesel room on an engine start because unless someone really has to be in there like an engineer to monitor something on initial start that's the type of stuff we cover in pre-job briefs, you know, minimize the people in the room because it is a potentially dangerous time when you're starting a diesel engine.

SR. PROJECT ENGINEER BARBER: Okay.



we've gotten a lot better at it, our pre-job briefs



are a lot more thorough and a lot more encompassing from all aspects, not only machine operation but as far as personal safety, lessons learned, OE, talk about communications, things like that, termination points. I mean that is like -- that's what our briefs are all about today.

SR. PROJECT ENGINEER BARBER: Okay.



They've evolved. They've

evolved.

SPECIAL AGENT NEFF: A lot better since when? What time frame are you comparing it to?

Well, I mean like when I first was an We always did pre-job briefs, but it seems like in the industry there's been, and at Hope Creek, there's been more of an emphasis in the past several years of more thorough pre-job briefs, what needs to be a part of those briefs. And I mean we have gotten better in terms of -- OE was always something that wasn't always discussed but now it's always discussed, making sure we have all the other departments engaged, like I&C will be there for a diesel brief because of instrumentation that they may have to install. We'll have Loss Prevention there for the CO issues, that type of thing.

SR. PROJECT ENGINEER BARBER: Let's stay

with the diesel for just a minute. You talked about carbon monoxide leaks. How did all of this first come about in your recollection?

Well, I know that -- are

you looking specifics?

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SR. PROJECT ENGINEER BARBER: Yes, kind of a sequence. Do you remember was there one diesel, one in particular or has it always been a problem? I mean has it been an issue for 20 years or is it a recent issue?

I don't know that Yes. it's always been a problem but there was, and I don't remember the diesel, the particular diesel, but it seemed to be more of an issue than others with regard to, I guess, atmosphere. You know, you walk in a diesel room and with CO in the air your eyes may burn a little bit, but I mean one diesel was really starting to show more signs of that. And one, I think, I'm trying to remember, during the one run there was some guys actually, I think, may have gotten a little sick. I'm not sure of the details because I wasn't there, but there were some concerns associated with that. And that actually was a big -- that was a big deal in our plant because especially from the equipment operator ranks they raised some safety



issues associated with that particular diesel, and then from there it just -- the CO issue spread to all the diesels and the sensitivity became a heightened -- more of an awareness. We were just more sensitive to it.

SR. PROJECT ENGINEER BARBER: Would you say that management at the Station reacted promptly to address the concern? I mean was it one of these things where they realized and acknowledged they had a problem and then within a short period of time took some action to shut the diesel down and get into repair activity to fix it or was there some period of time when there was some compensatory measures taken? Do you have a recollection?

What I'm recalling is that while there were compensatory measures taken, as far as repairs, I know things were included, were looked to be handled, placed in the work week schedule. I know that there were those types of things in place, but I don't remember the exact details. As far as them being timely, I think so. It's all relative.

SR. PROJECT ENGINEER BARBER: Okay.

I think that management did address them and put compensatory measures in

place to ensure the safety of the people.

SR. PROJECT ENGINEER BARBER: Do you recall what the comp measures were at all?

Well, I know that -well, CO2 monitoring for one thing and -- it's been a
while and I really don't remember the details.

SR. PROJECT ENGINEER BARBER: Okay. All right. That's fine.



I really don't.

SPECIAL AGENT NEFF: From the operators' standpoint, were they -- what did you hear from them? Were they satisfied with the way the issues were handled there?

operators I know was a pretty emotional -- and I don't know if that's the best way to describe it. I don't think initially that they felt that. I don't think that they felt that. They still had concerns about being in the room when machines were run for surveillances. That's what I'm remembering. But the incidents that I'm referring to happened on different shifts and I wasn't personally involved in those surveillance runs, and they were on surveillance runs. That's why I really don't have any details on them.

SPECIAL AGENT NEFF: Okay.

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SR. PROJECT ENGINEER BARBER: Okay. Okay. How about any other -- is there any other issues that stand out one way or the other as far as maybe you did have more involvement or have more knowledge of?

Yes. I know -- I can give you a specific, a recent one, and this is just indicative of what we've been doing recently. I mean we have been fixing a lot of things recently. I mean that -- safety is like the number one priority at the Plant. I believe that. If I didn't believe it, I wouldn't say it.

Perfect example, we had a -- we were doing some switching in the yard and it was a one to three breaker. There was a Section 1 disconnect that there was some issues with as far as being able to operate it. It was tough to operate, and it had been historically been harder to operate than the other yard disconnects. And I think on the last time that we switched, which was several weeks ago for some (inaudible) associated with debt, the yard -- one operator actually started to operate that -- open that disconnect and actually had to call on the other guy, the operator, who was there to take over because he physically couldn't continue, and it was in the middle of, from what I understand, drawing the arc as they

were opening it up. So that obviously got a lot of attention.

And this past weekend the Plant went through a major evolution to prepare that. It was prior to going back and just going back to normal line without repairing that, putting the -- you know, realigning all of our buses, taking out a certain section of the switchyard, 500 KV switchyard, which went over to the -- impacted 13.8 yard. It was huge, and we got fixed. And the only thing I'll say about that, you know, that showed a lot of people a lot of things, I think. You know, it showed me a lot.

Now, back in December --

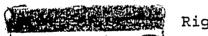
Well, the fact that we would -- we actually had to come down like 60 percent to do that, and, like I said, it was a big evolution in terms of not settling for equipment that was substandard, making sure we're going out to the fix, that type of thing. I mean it's obvious to me that with these forced outages especially that we've had, the amount of things that we've gone out to repair during the forced outage is really upper management saying, "Hey, let's get this stuff fixed. We're not going to settle for this stuff anymore." And I mean

that to?

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fact that people are becoming more safety conscious and the operators are not settling for taking equipment back from Maintenance that isn't right or isn't ready to go or it's not fixed. I mean we've done that in the past, we've settled for that type of stuff, and the operators aren't settling for it anymore. I mean notifications are coming left and right on things that are substandard.

SPECIAL AGENT NEFF: I'm just noting some of the words that you're using. It's "recently," "a lot of repairs," "anymore," and "people aren't settling for something like that."



Right.

SPECIAL AGENT NEFF: If they settled for that before, why are they no longer settling for that? Why would you run the power plant so very differently at this point in time?

It's not that we run the power plant differently. A lot of -- I'm not real good with words, and a lot of this stuff is subjective, but what I'm trying to convey is that it's been -- it hasn't been an overnight thing, and it's been a gradual transition. We've evolved into that

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type of environment. We've gotten more safety conscious aware, and, like I say, guys just aren't putting up with things anymore.

I can say this, when I saw the biggest change, and I guess it was about, I'm sure you know about it, I'm sure -- I don't know if it was two years ago, whatever, we had a building operator that was seriously hurt because he was trying to perform a PM on some service for the (inaudible) case out at our service intake structure, and he was out there by himself and he got conked on the head. So I mean that really was the turning point.

SPECIAL AGENT NEFF: For the added emphasis on safety?

Yes. And that's when the operators put their foot down and said pretty much, "We're not" -- I'm just trying to convey an idea here but, "We're not going to put up with this stuff anymore." And since that time it has just become more and more of a safety conscious work place.

SPECIAL AGENT NEFF: But that's an incident that happened two years ago. So at that point the focus becomes more so on industrial safety.





Right.

SPECIAL AGENT NEFF: But what you're

pointing to are changes that you've noted in the past six months.

Right. Right. I mean we -- after that incident we moved gradually toward a more -- toward a safety work place mindset type thing, but what I've just seen is just like it's -- like I said, it wasn't an overnight thing, it's just something that's continuing to grow and evolve. That's the best way I can explain it to you.

SPECIAL AGENT NEFF: The senior management changeout in the past, well, March, April, all the way throughout September, I believe, this past year in 2003, do you see that having any effect on the changes on site?

Yes, I do. I do. You know, I mean I can't tell you that I always felt that going back to when I started four years ago that -- I mean production has always -- production is part of our business, right? I mean we're in business to make power, and it's -- didn't always felt that safety took a precedence over production early on. Now, when I say that, I mean I always felt that I could raise safety concerns, things like that, but just based on the way that the whole organization worked that wasn't always apparent.

SPECIAL AGENT NEFF: Okay. I have to ask you, what exhibited that to you?

Well, I'm just saying that the work groups were just jampacked with work, they just seemed like they were almost impossible at times to execute, not only the surveillances but the corrective maintenance stuff that would come up. As a trying to execute the work weeks, I mean it was -- it just seemed at some points that it was just so much, you know?

SPECIAL AGENT NEFF: And now you went all the way back to '99, I think, but --



Well, 2000.

SPECIAL AGENT NEFF: -- are you looking at 2000 with your experience?

### Right.

SPECIAL AGENT NEFF: So back in that time frame? And how has that changed in terms of the work weeks?

Well, the work weeks are still packed, but the message we're getting now is that, "Hey, if something's not right, if you can't do a procedure as written, you stop, you've got to get the procedure fixed on a spot change, whatever, or you don't continue until it's right." And we do, we stop,

and equipment operators stop. And we take care of procedure changes to continue on or whatever it takes. If something's not safe, we stop.

Now, that's not to say that I'm using this six-month reference. This is what I'm remembering most because it's recent, but I mean the message since had that accident has --

SPECIAL AGENT NEFF: Two years ago.

Two years ago, has been that, but it's just grown stronger and stronger. It's become more but it --

SPECIAL AGENT NEFF: Is it a difference between where you see the message was there but it wasn't practiced or is it a difference in the buildup? Because what I'm noting here is what you said recently about the KV switchyard issue, the recent KV issue. What you pointed out, and I thought it was kind of significant, is that it impressed you because you went to 60 percent power.



Well, no, no. I mean --

SPECIAL AGENT NEFF: Is there something unusual about that?

No, no, there wasn't.

I'm just -- no, that is not the point I'm trying to convey.

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SPECIAL AGENT NEFF: Okay. Okay.

What I'm just saying it was a lot for the organization, not just talking about the 60 percent, but we even -- there's a lot of evolutions to a lot of things that had to happen to put the Plant into lineup to support that repair. And it was the right thing to do because it was a safety issue but we did that. I mean we were transferring 1E buses and non-1E buses to their alternate in-feed for power and there's always risk associated with bus transfers. I mean if something went wrong, we could drop a bus and lose the vital loads on that bus, but I mean that's the extent -- I mean that's where management was willing to go to address this safety concern.

SR. PROJECT ENGINEER BARBER: How long had that existed prior to that? I mean you kind of -- you intimated that it had been a problem for a while, but I mean how long was that?

Yes. I mean not like it

was the last time it was operated. I mean it had always been a more difficult disconnect to operate.

And I can say this about it: In December -- you know,

we've had a number of forced outages here. In

December, we had another and there was a notification

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written on that disconnect at that time, okay, and it wasn't handled at that time, but my understanding of the reason it wasn't was because it was not really brought to management's attention the way that it should have been. Apparently, the groups that look at these notifications or the screening that was done just didn't bring the urgency of it to light.

But I have to tell you when the last one was written following the difficulty we had operating the disconnect, I mean that was it, we fixed it. But I mean like (phonetic) just came out this past week of training and was talking about that and he said, "I have to tell you, Management, we were not aware of the significance and we're not sure how that fell through he crack," I'm paraphrasing, "how that December notification did not get elevated to the point that it did this time." But if it had been, it would have been addressed the same way.

SPECIAL AGENT NEFF: What about in the past where you were indicating that you didn't always get the message that it was safety over production, it was vice-versa, and you mentioned the work week management on that.

Well, not vice-versa. We always got the message but sometimes you say one thing

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and it just seems that -- and I'm not talking like there were any specific incidents where things happened, I'm just talking in general, the feeling I had, the perception I had was that we -- production was, even though we talked safety we talked a good talk but maybe we didn't walk the walk, and there was always so much emphasis on production. I just don't feel that way any more, that's just the feeling I have.

can't give you any specifics, details, but it's just that having been a and worked the work weeks, knowing what the work weeks are like, what it takes to get them done, knowing that safety is our number one priority, still getting that message, it just didn't seem like that things were being addressed or fixed to fix things on a permanent basis. You may fix something but it was like it might show up later, like a month or two later because it wasn't adequately addressed in the repair, that type of stuff. Now, I mean the root causes that the organization's doing to make sure that, hey, we fix something this time, it's not going to happen again. We've had inadequate -- it just didn't seem like things were fully baked as far as bringing these to a final --

SPECIAL AGENT NEFF: Fix it right?



Right, fix it right. Now

we're doing that.

SPECIAL AGENT NEFF: Where was the breakdown? I mean where does that go to? If it wasn't getting done before, what's changed?



/ I don't know.

SPECIAL AGENT NEFF: Is it better maintenance? Is it better scheduling? Is it more resources?

Well, the work recently has gotten more sophisticated as far as scheduling, I mean as coordination of activities. We did have some bad maintenance practices in the past, and I can't speak on those details. I just know that from things that had been reworked that there were some issues with maintenance, and there have been attention to detail issues, human performance issues that have occurred, but I think we're working smarter and we're working more focused and we're -- the message that everybody is getting is production is important, it's one piece, but it's not at the expense of safety. That's what I'm getting.

SPECIAL AGENT NEFF: That's what you're getting since when?

Like I said, the emphasis

-- I've seen it since got injured and I've seen
it grow since that time to the point where it is now.

I mean that's the message that everybody's hearing.

I mean if somebody in the organization thinks that -
I mean if it's not obvious that everybody in the
organization -- that we're fixing things -- I mean
that we're not fixing things, that's wrong, because
we're -- you should look at our track record. I mean
we're just -- we're fixing stuff and we're fixing it
right.

SR. PROJECT ENGINEER BARBER: Going back, oh, I don't know, a year or so, have you ever been involved in situations where maybe there was some repair that was needed or some position you had to move the Plant to effect a repair, have you ever felt like, gee, we really need to do this or we're not dealing with this issue very well? Have you ever been like frustrated or disappointed with what kind of support you've gotten on more of the significant issues that have come up?

specifics, nothing that really stands out.

SR. PROJECT ENGINEER BARBER: You're kind of hinging everything on like something that happened

In

procedural

or

two years ago, and you talk about things being 1 2 evolutionary, but, sure, along the way there's been 3 various situations that have come up that may be more significant than others that maybe you're involved 4 with or you seen the decision making, you have 5 6 questions about it. Anything come to mind in that 7 regard where it either went really well or it didn't go well? I mean you've given us examples in the last 8 month or two things that went fairly well. How about 9 things that just didn't really happen the way you 10 11 thought they should have? 12 Like I said, I can't 13 think of any specifics going back that far that really 14 stand out that would make that much of an impression 15 on me that think that maybe we shouldn't be doing I just can't --16 this. 17 SR. PROJECT ENGINEER BARBER: Okay. Well, let me ask you about a couple of things. 18 19 SPECIAL AGENT NEFF: Let me just ask --20 SR. PROJECT ENGINEER BARBER: Okay. 21 SPECIAL AGENT NEFF: What about in terms of -- from what you observed, you questioned if the 22 emphasis was coming from the production side. 23

compliance, do you recall anything along those lines?

operability decisions

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operability, no, and procedural issues. I can't think of any specifics. I can tell you -- I mean the thing that comes to light with regard to maintenance issues, things like that, would be diesel type things that we talked about. I can think of one going back a little ways, going back probably to last February, okay, that we were doing a diesel run and I guess we were in a -- we had actually gone into a diesel outage and there was a -- we didn't get it returned and the diesel back within the window that we wanted and actually went

into the 72-hour shutdown action.

This is 2003. And I can't remember if it was some type of jacket water leak or not, some type of leak, and we had problems with that leak repair. And, you know, I remember hearing from a couple of the equipment operators said, "Hey, you know, we should end up just shutting this thing down and taking the Plant down." But we ended up going with a CROD, inoperable but degraded type evaluation on the thing. I mean my perception is this: You've got your workers, your union guys, you've got your first-line supervisors, and you've got management, and

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and it's very easy for union guys or for union people to say, "Hey, you know, all this isn't right. Do this, do that," without any thought to the way it impacts other things. And I mean you have to get Engineering involved, you have to get the Maintenance groups involved, I&C, and you have to talk about it, figure out, hey, can we remain operable, can we make a case for this thing being inoperable but degraded without just going -- sure, you might hear some guys saying, "I wish they'd shut this thing down." Based on what?

Okay, I understand we have an issue here, right, but you also have some risk with putting a plant through shutdown evolution as well. I mean that's -- shutdowns and startups aren't things that are practiced regularly except for seems like recently and there's risks there. So you're going places you don't -- you really may not be proficient at. Now, we have training before these evolutions every time we do them when they're planned, but to just -- I think it's wrong for guys to -- and guys get emotional about things but to just come out and make statements off the cuff that, "Hey, we just need to shut this thing down and that's it," there's just more to it than that. There's other things to run, other things to consider.

personally? Have you ever been involved -- I'll put it this way, have you ever heard of a call made where it was -- the piece of equipment in question, as you said, can you make it operable but degraded as opposed to declaring it inoperable? Have you ever been involved in a situation like that where you thought that that was really -- there was too much risk, that you were just not comfortable with the call?

No. No. Because when we call something operable but degraded, I mean there is a significant amount of work that supports that determination. I mean these CRODs are -- I mean it's got our input, it's got Engineering's input, and it's not something that's taken lightly. I mean there's a lot that goes into that before we make that call.

SPECIAL AGENT NEFF: Okay. So you personally haven't experienced anything that really tested your comfort level with what the call was going to be.



Right. Right.

SR. PROJECT ENGINEER BARBER: That jacket water leak you described, were you actually on shift when --



I was the -- we've had a

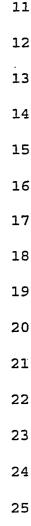
to shut down because we would not be able to repair the leak. And I think the LCU ran out some time late in the morning --

(END TAPE 1, SIDE A)

(BEGIN TAPE 1, SIDE B)

SPECIAL AGENT NEFF: The time is approximately 1:37 p.m. Thank you.

Yes. What ended up happening in that case was I mean Engineering was working on it the entire time and one of the engineers had actually contacted -- I guess got hold of another plant or the vendor, I don't know, it was on the west coast somewhere, and had gotten some feedback on I guess it was the O-ring seal or whatever that -- some type of shaft seal that the way it was supposed to be installed and what it looked like was -- I don't think our Maintenance guys were installing it the correct So, like I said, just remembering, just trying to remember what we were doing there. And with that bit of information they reinstalled a new O-ring or shaft seal and I believe, and I'm not certain, I think it was still operable/degraded because there was still some leakage but it was well within the design requirements of the system, makeup capacity of the system. So I personally didn't have a real concern at



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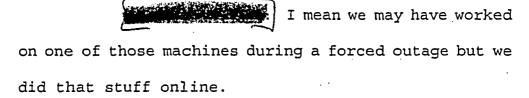
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that point.

SR. PROJECT ENGINEER BARBER: All right. How about any other type of issues that stand out in your mind? You talked about -- I think one of the very first technical issues we talked about was a carbon monoxide leak on a diesel. We talked about it being fixed and was that done in a forced outage, do you remember, or was that something that was --

I know we had fixed those things online.

SR. PROJECT ENGINEER BARBER: Okay.



SR. PROJECT ENGINEER BARBER: Okay. How about --

I mean you talk about things that frustrate me and frustrate operators. I mean there are things out there that are issues, and I'll give you a couple of examples. This is the best I can come up with. We have an EHC filtering system for our EHC off our main turbine, okay?

SR. PROJECT ENGINEER BARBER: Okay.

And I think it's been an issue throughout the industry. We are constantly



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filters in that system it seems like at a, I want to say, at a frequency that is just not -- should not be. It's a burden in the organization to tag it, to get that portion of that system drained, to replace the filters and get the samples and it's been a problem I want to say, a couple of years within Engineering. But it's only been within the past six months that it seems like that we're really changing these things out more than it needs to be. And I know Engineering's been looking at it, it's high on our list of priorities, and we just have not come up with any answers and Engineering has not come up with any answers as to what needs to be done with this problem. not that isn't being attacked but frustrating.

replacing our filters, our select filters and our fine

I can tell you one other example that I can cite that's very frustrating for is our aux boiler systems. We have had numerous trips with our aux boilers, which obviously is a bad thing to happen when it's cold out, and aux boilers are things that you need when you shut down. And the reliability of our aux boilers has been substandard. Another organization has looked at it but that problem has not been addressed. That has not been addressed

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adequately.

SR. PROJECT ENGINEER BARBER: Is that attributed to something in particular?



Well, I don't --

SR. PROJECT ENGINEER BARBER: I mean the trips. I mean if you were to kind of look at a listing of different trips, are they all on about the same kind of problems?

think a couple years ago they were derated and I think there might be some issues associated with that, but the equipment is -- you know, it's one of those systems where it's not in-plant equipment, it's in the boiler house out there and it doesn't get the attention that it needs to get. And I mean we react every time if there's problems with it, and I know there has been some efforts made in the organization to address that, but they're not where they need to be, they're not where they need to be, and I don't know what it's going to take to get them there.

SR. PROJECT ENGINEER BARBER: Does that have a system engineer dedicated to it?

You know, I don't think so. I don't think so. We used to have -- going back to when

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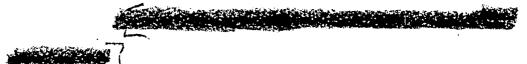
frame, we used to have dedicated system engineers and we had system engineers for all those systems, and now we don't have that. We went through a major reorganization in Engineering, I was part of that, and a big piece of that was a lot of -- prior to that all the engineers were dedicated to each station and after that they came up with an engineering organization where engineers were working at both stations and Hope Creek guys over at Salem and Salem vice-versa and that just wasn't working, and it took them a couple years to figure that out, and I think recently they're going back to that type of alignment. But I mean I don't know how you can expect a guy at Hope Creek to work over at Salem when he probably never set foot in the place and handle a control system or something like That organization is -- I think they're still finding their way. I mean there's a lot of people that work hard down there, but I don't know if they're understaffed or what but they struggle, they struggle, but they work hard.

SR. PROJECT ENGINEER BARBER: Okay. Let me ask you about a couple specific technical issues. Back in March of 2003 there was a forced outage. I think it may have been to repair some of the diesel leaks and maybe (inaudible) or something else, and

there were some problems coming out of the outage, and you may or may not have been involved in that. One was it had to do with a turbine bypass valve.



SR. PROJECT ENGINEER BARBER: Okay.



SR. PROJECT ENGINEER BARBER: Can you kind of recount what happened and what you thought of that? Why don't you talk about technically what happened and then your impressions afterwards?

Well, let's see, I think we had come down to somewhere between four and eight percent power, and --

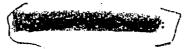
SR. PROJECT ENGINEER BARBER: Come down or come up? Were you starting up or --

numbers. We started up and we put the turbine online and then one bypass valve didn't go closed.

SR. PROJECT ENGINEER BARBER: Okay.



SR. PROJECT ENGINEER BARBER: Do you happen to recollect which bypass valve it was?



I want to say -- you

know, I don't. It may have been Number 1. I can't remember.

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SR. PROJECT ENGINEER BARBER: Okay. You don't remember. Okay.

So that was a Friday night, it was our first night, Friday night, on a weekend night shift, and so the plan was to come back down and fix that bypass valve. So we went to training on that Saturday night and there were some issues with the training. It was a last minute thing that was thrown together. They tried to put together a good plan, but we precty much had to write a new section of a procedure to handle that evolution. And I remember going through that in the simulator. we left there I was very uncomfortable with it, and I even stated that during that training period during that night. Because it just wasn't clear how we were going to achieve this even though we had this procedure because, like I said, it was new, it hadn't been performed before, the whole evolution was being handled as an IPTE, infrequently performed test and evolution, and when we left we thought we had a good plan but there were some concerns going through it. It just didn't seem like --

SR. PROJECT ENGINEER BARBER: What was the

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1	gist of the plan? I mean what was were you still	
2	at like	
3	No, we were at power.	
4	SR. PROJECT ENGINEER BARBER: Like 15	
5	percent or so? When did the bypass valve you were	
6	putting the turbine on or were you still at like four	
7	or five percent?	
8	No. Well, when we put	
9	the turbine on it was probably about 15 percent,	
10	somewhere around there.	
11	SR. PROJECT ENGINEER BARBER: Fifteen.	
12	SPECIAL AGENT NEFF: So it sat there from	
13	Friday to Saturday at about 15?	
14	Yes.	
15	SPECIAL AGENT NEFF: And then you went	
. 16	into the IPTE training?	
17	Right.	
18	SPECIAL AGENT NEFF: Who was in that? Who	
19	was present for that?	
20		
21		
22	we had who else?	
23	SR. PROJECT ENGINEER BARBER: Who was the	
24	RO?	
25	The RO was not present at	<b>.</b> ,
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that training. The RO was a training instructor who 1 was standing in. The RO was a guy who was working 2 overtime Sunday night and he was not at that training. 3 I'm trying to think of who else was there? 4 SR. PROJECT ENGINEER BARBER: 5 Is there some reason why that occurred like that? 6 7 normally if you're doing some sort of training, you'd normally want to have 8 9 principals there. 10 Yes, you do. Yes, you I don't remember what specifically happened 11 there. I really don't. I don't know why -- there was 12 there but I can't remember who it was. I 13 14 don't remember. 15 SR. PROJECT ENGINEER BARBER: Okay. 16 SPECIAL AGENT NEFF: I have a list. What shift would this be? 17 That was on echo shift. 18 19 SPECIAL AGENT NEFF: (phonetic) is right? . STA --20 21 22 23 but he was not there 24 because he had been pulled off shift for outage 25

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preparation.

SPECIAL AGENT NEFF: This was echo shift?

Echo shift.

SPECIAL AGENT NEFF:



(phonetic)?

was not there that

SPECIAL AGENT NEFF:



(phonetic)?

night.

T don't was in there that night.

SPECIAL AGENT NEFF: You know -- oh, I
ee, on a different --

I don't think was

there that night.

SPECIAL AGENT NEFF: -- he's on a different shift right now. in there with

Oh, it was we had was we had

SR. PROJECT ENGINEER BARBER: Was he normally on the shift or was he -- because we have something that's fairly recent and people may have moved

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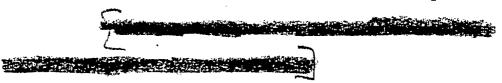
both went to the probably halfway through the year.

SR. PROJECT ENGINEER BARBER: Okay.

So, yes, was in

He was the -- he was on

SR. PROJECT ENGINEER BARBER: Okay.



SR. PROJECT ENGINEER BARBER: Okay.

on opposite sides of the horseshoe and --

SPECIAL AGENT NEFF: Who was the stand-in for training, the

(phone)

SPECIAL AGENT NEFF:

And, you

know, so we had two ROs, two NCOs, who he was more or less handling the administrative stuff in the back and he wasn't involved in the command and control. And was in there, and that was pretty much it for control room complement from what I remember.

SPECIAL AGENT NEFF: Who developed that

plan?

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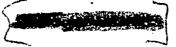
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I think



(phonetic) had a lot of input into it, but I don't know if was the sole person. But it was SORC'd, it was SORC'd I think Sunday. I mean the Plant was stable sitting there with a bypass valve, the one bypass open, that was not an issue.

SR. PROJECT ENGINEER BARBER: Let's not get too far ahead. I want to stay with where we were on Saturday on a little bit. Okay. You said have been involved with putting it together. What's the normal is there a procedural requirement that talks about who should be there either at the training evolution or the briefing, and does it talk about the authors and having an involvement with that?

Well, I got to tell you, I'm sure there is but I wasn't involved with that end of it, and I really don't -- I can't comment on that.

SR. PROJECT ENGINEER BARBER: Well, how about your feelings when you were going through it? I mean you said you had some questions about what was being done or the way it was formatted. What were your concerns with the --

I've got to tell you, you're putting me in a tough position here because I'm trying to remember. It was very detailed and very

complex --

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SR. PROJECT ENGINEER BARBER: Okay.

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-- and that detail

5 6 7 escapes me at this point. There was ways in which we were -- the Plant was critical and we were -- we had to come down on the bypass valves to get down to a certain pressure. I think we had started like at 920 and we had to get down to like somewhere down below 700 pounds.

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SR. PROJECT ENGINEER BARBER: So you were trying to move reactor pressure from 920 psig to 700.

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With bypass valves while

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we're critical.

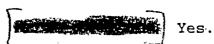
critical.

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SR. PROJECT ENGINEER BARBER: While you're

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SR. PROJECT ENGINEER BARBER: Had that never been done before?

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I don't think so, not at

SR. PROJECT ENGINEER BARBER: Okay. Well,

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Hope Creek, as far as I know.

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what would you typically do? I mean if you were just

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doing a routine shutdown or a shutdown for a forced

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outage or if you had the luxury of time and there was no equipment malfunctions, how would you shut the

Plant down?

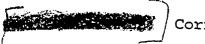
We'd be at pressure. We'd be at pressure, and then we'd cool down the But we'd be so critical the Plant SR. PROJECT ENGINEER BARBER: When in the When we come down we take the turbine offline at about 15 percent, 20 to 15 SR. PROJECT ENGINEER BARBER: And then we would --SR. PROJECT ENGINEER BARBER: . Do you scramble or do you drive the control rods in? No, we don't do a soft SR. PROJECT ENGINEER BARBER: Okay. So --And then we would depressurize. But, see, now we depressurize -- we're coming down in pressure on bypass valves while we're SR. PROJECT ENGINEER BARBER: Okay? And that was the

Okay. All

right. So that was the part that was different.

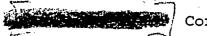


SR. PROJECT ENGINEER BARBER: You're making reactivity adjustments potentially used on bypass valves.



Correct.

SR. PROJECT ENGINEER BARBER: Okay.



Correct.

SR. PROJECT ENGINEER BARBER: All right.

Vague guidance in the new procedure that talked about how we were going to manipulate the bypass valves to do that. And pressure shut would be the normal way we would do that. Their option was to use the manual bypass valve jack --

SR. PROJECT ENGINEER BARBER: Okay.

you're going to use the manual bypass valve jack, then it's a manual operation and you have to stop when you want to stop. If you are doing it with pressure set, you would take your pressure set point down to a certain point, the reactor pressure would get down to that point, and then it would stop automatically, okay? So the procedure gave us the option to use both.

anybody?

I don't remember, I don't remember practicing that a whole lot. I think we got some practice at it, but there were questions about that aspect of the evolution that -- I mean there was a lot of frustration in that training -- in those couple hours that Saturday night.

SPECIAL AGENT NEFF: Among the crew that was practicing that?

Yes. Yes.

SPECIAL AGENT NEFF: Was it expressed to

expressed it to my and then we worked through some things. Like you said, I'm 30,000-foot view here because I can't remember the details. We worked through some things and we did some things with the procedure and we felt that we were in a place that was okay or comfortable to actually perform this thing. And as it turns out after the fact, 20/20 hindsight, there were some things that we -- it wasn't fully baked, it wasn't a fully baked plan.

SPECIAL AGENT NEFF: So you say you expressed it to that you had concerns and then you worked through it. And you said we got to a

point where we were comfortable. 1 Comfortable is a relative 2 I mean we felt that we would not have had an 3 issue accomplishing completing the evolution safely. 4 5 SPECIAL AGENT NEFF: Did that include you personally? Are you speaking as a team or were you 6 personally satisfied with it? 7 Well, I can't speak for 8 9 anybody else: I felt more satisfied than I did when 10 I voiced the concerns I had had. I felt that we were okay to go. I didn't feel great, I felt okay. 11 SPECIAL AGENT NEFF: What would have made 12 you feel great? 13 I don't know. I don't 14 15 know. 16 SPECIAL AGENT NEFF: Do you recall where your discomfort was with --17 ) It was very complex, it 18 was getting into the details of it, and I don't recall 19 those details. I'd have to read through everything 20 again. 21 SR. PROJECT ENGINEER BARBER: Without 22 23 necessarily going into the details because you may not remember them that well, but what you probably do 24 remember is how you felt at the time and maybe a 25

little bit about why you had some angst. It sounds like you did have some issues with the procedure and 2 you expressed them and then there was some resolution 3 of some sort to try and address where your concerns 4 were. Were you the only one that had concerns? Was 5 there any -- did say, "Yes, I mean you're right. This doesn't look right," or did any of the ROs, whether it was did any of those guys say, "Well, gee, this doesn't -- we're having trouble controlling," or was there a lot of back and forth?

All I can tell you there was a lot of discussion amongst the crew about how we were going to do it, and that's all I can really say about it.

SR. PROJECT ENGINEER BARBER: What was the spirit of the discussion? Was it, "Yes, let's try and work our way through this. Let's try and get something to work, " or was it, "God, this is really bad. We can't believe we got this." What was --No. No. We tried to work through it. We actually had to be back -- see, we were due -- we were in for night shift that night, Saturday night, and the crew that was on day shift was actually staying over or there had been some other

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1	people brought into relieve that crew until we got		
2	back. We had to be back by like 11 or 12 midnight.		
3	So there was a certain amount of time pressure to come		
4	up with this plan to achieve this thing on Sunday nigh		
5	t.		
6	SR. PROJECT ENGINEER BARBER: So you were		
7	on nights, so you were on basically from seven p.m.		
8	Saturday night to seven a.m.		
9	Six to six.		
10	SR. PROJECT ENGINEER BARBER: I'm sorry,		
11	six to six.		
12	Right.		
13	SR. PROJECT ENGINEER BARBER: I mean the		
14	shift is seven to seven but you were there early for		
15	turnover, right?		
16	Correct.		
17	SR. PROJECT ENGINEER BARBER: Okay.		
18	Right.		
19	SR. PROJECT ENGINEER BARBER: So you're		
20	on, say, six to six. Okay. So you're out there five,		
21	six hours, something like that, or four or five hours		
22	working through the procedure.		
23	Right.		
24	SR. PROJECT ENGINEER BARBER: Did you ever		
25	like in the process say, you know, we're doing		

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something that should have already been done? Like what you're describing is more along the lines of validating the procedure, not practicing but --

See, that's the thing. It wasn't a procedure validation and it should have been. We were still hashing things out at that point and that's the best way I can put it without, like I said, remembering all the details. And that's an honest answer. We were still hashing things out, weren't exactly sure at points during that training which way we were going to go. We were looking at several options, and it was not a validation, was not a validation of a procedure, and that's what it should have been.

SPECIAL AGENT NEFF: Where was the time pressure coming from?

Well, we had to get back to relieve the shift.

SPECIAL AGENT NEFF: You explained there was a shift relief, right.

: And the plan was to -- I mean was to get us in there and practice this thing Saturday so we could take the shift the rest of the night and then it could be SORC'd or approved on Sunday day so it could be performed Sunday night.

That was the plan. So the time pressure that I know that we felt was that we had to get through this so we can get back to relieve the other crew at midnight.

SPECIAL AGENT NEFF: Would you be the same crew that was performing it on Sunday night then?

Correct. Right. We were to perform it.

SR. PROJECT ENGINEER BARBER: Did you ever make any kind of statements or do you recall any statements that were something along the lines as, "We're doing a validation and we really need to practice this more. Why don't we tell SORC or management that we need more time, we need to go through this? And instead of trying to SORC it on Sunday day, why don't they just SORC it on Monday and we'll take -- we'll come back in if we have to on Sunday night and go through this again and make sure that we're really training on the procedure and not validating it." Was there any discussion like that?

There really wasn't a discussion like that.

SR. PROJECT ENGINEER BARBER: It didn't even enter your mind or mind? Did anybody voice that?

I shouldn't say that there wasn't any discussion on that. I don't remember personally being involved in any discussion like that. There may have been by people on day shift on Sunday. As far as the operators went, there was really no discussion about the fact that we were not going to do it on Sunday night.

SPECIAL AGENT NEFF: No discussion that you were not going to do it.

That we were not going to be doing it.

SPECIAL AGENT NEFF: The question comes in here too, where's sit on this? Is he in agreement with the crew that you could have been more satisfied with the plan that you had? Was he in agreement with you?

At that time? At that time? Well, he knew -- I mean I was pretty vocal about it, and I mean my exact words at one point I said -- I stopped and I said, "Look," I said, "if we can't figure out what we're going to do," because we had been talking about a lot of different things and I was getting confused and it was not clear to me, and I said, "Look," I said, "if we can't come to some type of resolution on which way we're going to do this, you

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can find yourself another to perform this evolution." I mean it got to that point, and then we worked through it. I mean that's a picture of what happened that night.

And with regard to the RO not being there, okay, should have been there, all right, but impression of what happened that night as far as the people who were there, we had the guy who was going to be on local control, the guy who was going to be pressure control, and the guy who was going to be the reactor operator was going to be inserting rods and doing those types of -- a piece of evolution that didn't require the coordination that was required between local control and pressure control. Whenever we move rods to get to a certain point, that was a dedicated thing, nothing else was going on at that That's not to say that he shouldn't have been there, but I think that's what happened as far as not having the RSO guy. And, you know, we did a reactivity brief and all those types of things before when we came in for the evolution, but that would be my only recollection of why he wasn't there.

SPECIAL AGENT NEFF: But in terms of where you stood was that what you were originally working with you were dissatisfied to the point where you were

satisfied.

More satisfied, right.

SPECIAL AGENT NEFF: Satisfied enough to

Satisfied, in my mind, at that time, that we would -- there would really be no doubt that we'd have a successful evolution.

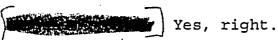
SPECIAL AGENT NEFF: There's something that I guess I'm not understanding.

The thing is is that I can't convey -- where the gap here is the details, and I'm not -- I can't --- like I said, it was very complex.

SPECIAL AGENT NEFF: Right.

I cannot recall the details of this, and that's I think where we're having a disconnect here.

SPECIAL AGENT NEFF: Understood. I wasn't even actually going there. What I'm looking at is I think you described it is that the Plant was stable, around 15 percent or so at this point.



SPECIAL AGENT NEFF: So where is it -- why is it that the move had to be made on Sunday? If everything's stable and there's no --

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Right.

Did Did

SPECIAL AGENT NEFF: rush to anything, why would it be get it done by Saturday midnight so that you can come in here and perform this on Sunday night?

You know, I don't have real answer for you for that, and I don't know that it needed to be performed Sunday night. I don't know.

think it needed to be performed on Sunday night?

SPECIAL AGENT NEFF:

I can't speak for All I know is that it was a priority with make sure that we had something to go back with before our time was up, at least something that was -- that looked like it would work and that the crew was satisfied with. That's what I'm remembering. He didn't drive it down our throats, it was just -- I was under pressure too. I mean we're all feeling like we've got to -- we're here to train on this and we are expected to perform this tomorrow night and we need to be ready to split the organization off. That's what we were feeling.

SPECIAL AGENT NEFF: You had to come up with something that would work. All To



Correct.

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SR. PROJECT ENGINEER BARBER: Did anybody ever offer -- I mean as you described it, there was time pressure. You walk around here and you see all these different human error traps for human performance issues, and that's one of them. Time pressure is always mentioned.

Right.

SR. PROJECT ENGINEER BARBER: Did anybody offer that and say, "Hey, look, we're falling into a trap here. We need to examine why we have this time pressure and if it's reasonable or not, and do we have other options. Is there some way we can buy time? How do we buy time in this process or how do we get feel what need so we comfortable, totally comfortable with the evolution and we don't feel like there's a rush to judgment or a rush to try and get this done and we just don't feel like we've adequately aired out all our issues and concerns?"

Well, you're right, there was a lot of that stuff around here, and I mean we covered all that stuff in our brief. That Saturday night when we were in the simulator I mean we were just intent, focused on the evolution at hand. I mean we talked about making sure we had the proper peer checks, proper communication between the pressure

control operator and local control operator during these bypass valve manipulations.

that's what I'm saying, Ι mean organizationally after this event I mean that had a big impact on our Department, obviously, in the way we do business, and that's why when I sit back six months, six, eight months, whatever, back to the spring, that's when I'm seeing a big change, you know what I mean, in just the way we conduct business. don't think that that type of thing would happen again where we had a plan that wasn't, for lack of a better term, fully baked. I don't think it would go off the way that it did. I think that those questions would be raised and basically, "Hey, we're not going to do anything here until this thing is right with everybody and there's no question in anybody's mind that this is going to be successful." And I don't think that -you know, and having said that, I don't think that anybody didn't think that we weren't going to be successful back then. I mean we felt coming out of that thing and coming in Sunday night that we were going to be successful. I mean when you look at what happened there I mean there are some issues that -there are some things that you also need to realize we had a plan. When we were bringing pressure down with



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the bypass valves when this event happened we had a 1 malfunction at the same time, and that had a big part 2 in it to why things happened. There were things that 3 -- it was a combination of things. 4 SPECIAL AGENT NEFF: But why would you be 5 in that position then where you say it wouldn't happen 6 now but it would happen then. 7 Now the difference would be that people would speak out about it and 8 raise the concern about not finding yourselves in that 9 10 position. Well, because it 11 12 happened. SPECIAL AGENT Because of the 13 NEFF: incident. 14 Because it happened. 15 16 SPECIAL AGENT NEFF: You have an example 17 to point to is what you're looking at. 18 19 SPECIAL AGENT NEFF: How about 20 in that time frame, did you become aware that he ever expressed to anyone that he had no control 21 over that evolution? 22 23 SPECIAL AGENT NEFF: Did he seem --24 Oh, you're talking about 25

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that night?

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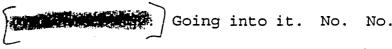
SPECIAL AGENT NEFF: Yes.

I want to make sure I understand your question. Could you ask me again?

SPECIAL AGENT NEFF: Going into that from that Saturday into --



SPECIAL AGENT NEFF: Going into it did he ever express that he had no control over that particular evolution, that IPTE?



SPECIAL AGENT NEFF: Coming out of it?

A lot of people were second guessing themselves coming out of it.

SPECIAL AGENT NEFF: And what about during the incident?

The first bypass valve problem we had we stopped. We talked about it and we got a consensus among the crew that we were okay to continue. When it happened the second time, when we had the second occurrence and I -- obviously, we had second thoughts at that point as to where we were going to go. So we stopped cold boil and got some other guidance.

SR. PROJECT ENGINEER BARBER: That was on

Sunday, right?

)That was on Sunday night,

yes.

SR. PROJECT ENGINEER BARBER: Okay.



SPECIAL AGENT NEFF: Did he -- go ahead, you finish.

But I got to tell you, after the second time we stopped and we just weren't going to continue because we didn't know -- we needed something else at that point, and --

SR. PROJECT ENGINEER BARBER: Would it be fair to say you felt uncomfortable where the Plant was at that moment?

Mot at that moment. I mean the transient that happened happened and it was over.

SR. PROJECT ENGINEER BARBER: Okay.

were watching power. I don't know how much you know about the actual details of the event but we were -- we stabilized the Plant, we stabilized the Plant, and we're trained to either stabilize the Plant or take the Plant out, and if the Plant gets away from us, then we take it out. And there's a lot of discussion

about -- there's a lot of -- in hindsight, the best thing to do would have been to take the Plant out, in hindsight.

SR. PROJECT ENGINEER BARBER: Why do you say that, because it sounds like you felt differently about that at the time. Sounded like you felt comfortable with where things were.

Well, it happened so fast and we were reacting to what we saw. Now, we're in mode 2 now. Our mode switches start off on standby, so our (inaudible) are reduced. So now they're at 15 percent as opposed to a higher value where we would be in run, okay?

SR. PROJECT ENGINEER BARBER: Right.

So we were like at seven percent power and we had the incident with the bypass valve, so pretty much the bypass valves open up, a couple bypass valves, and they start steaming off your level. We lost like I don't know it was eight to ten inches, and the guy in local control or our feedwater, which is automatic, sees that reduction level and we have equipment problems with sticking startup valves. A startup valve pops open and feeds all this cold water in. So now power's coming up and it's happening fast and then we see power coming up, secure that

valve, that startup valve's not feeding anymore, power comes up and settles back down. It had gotten up to about 13 point something, so we were watching it and the plan was to take it out at 14 percent. I mean if it got up to 15, the Plant would have went out on its own, that was the scram set point. But we never reached 14 percent and, like I said, it was over as soon as it started. It was very dynamic, it was fast and the Plant was stable and it was over.

SR. PROJECT ENGINEER BARBER: That 14 percent number, was that something that you had discussed during the -- was it part of the procedure or was that discussed during training or was it actually an on-the-spot decision?

No, it was an on-the-spot decision. That was not -- and that was one of the places we fell down. In our pre-job brief we didn't discuss a value with scram set point set down where we should have taken it out, and maybe at that point we would have done something -- we may have said at 13 percent during the brief, but when it happened the number was 14 and that's what we were going with. But it's -- I mean it could have happened so fast that we wouldn't have had time to react anyway.

SR. PROJECT ENGINEER BARBER: Was there

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any repercussions because of the event itself.



In terms of?

SR. PROJECT ENGINEER BARBER: Did anything happen to anybody in the aftermath of the event?

Oh, yes. We got taken off of shift and our quals were delimited, and we were out at the training center for a month getting retrained.

SPECIAL AGENT NEFF: The whole crew,





We lost our quals.

SR. PROJECT ENGINEER BARBER: Okay. you lost your qualifications. Was that a temporary --

SR. PROJECT ENGINEER BARBER: Was this something that happened, Ι don't routinely, but if there was a circumstance that was somewhat similar as far as the significance, was this like a standard thing that would happen? I mean there wasn't anything unique about your crew or your shift. Like some other shift, if they had been involved, the same thing would have happened to them?

As far as losing their quals?

SR. PROJECT ENGINEER BARBER:

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Oh, yes.

SR. PROJECT ENGINEER BARBER: Okay.

Yes.

SPECIAL AGENT NEFF: We were talking about before and during the incident you said a lot of people had second guessed it afterwards. Did at any point in time you hear indicate that he had lost control of the evolution?



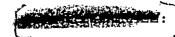
SPECIAL AGENT NEFF: At any point in time, before, during or afterwards?

I had control. and control function, the in control, and the OS has the oversight, and yet he is ultimately responsible. I didn't feel that we had lost control but it was moving fast, but it was not unmanageable from my perspective. I mean we were ranging up on our M switches, we were intermediate range, but the ranges were peer checked and one at a time and we did several manipulations but it was not multiple type things, peer checks not happening, that was never the case, that was never the And like I said, power peaked and it came down and it was over.

SPECIAL AGENT NEFF: You said it happened

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quickly.

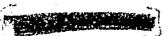


It happened quickly.

SPECIAL AGENT NEFF: But I understand you're the command and control, but did you ever hear indicate that he had lost control of the evolution at any point, before, in the planning stages, during or after?

well, not in the planning stages, and I didn't hear anything during that, but when we're sitting out here having time to think about things he felt that he was not where he needed to be in the control room as far as he was down on the floor and he felt that after we had some discussion about it that he should have been back and that he got too sucked up into it and that that contributed to the event. But I don't -- that's what I heard allude to. That's not -- I don't know that --

SPECIAL AGENT NEFF: That he got too close to it?



Yes.

SPECIAL AGENT NEFF: While you were going through it. He was at the operator level?

there also.

1	SR. PROJECT ENGINEER BARBER: Why did he
2	say that?
3	I guess he said that
4	there was too much conversation going on or he could
5	not hear the communications down on the floor because
6	I was down on the floor with the operators and he
7	couldn't and that's why he said he was down there,
8	I don't know.
9	SR. PROJECT ENGINEER BARBER: I'm not sure
10	I understood that.
11	Well, see
12	SR. PROJECT ENGINEER BARBER: I'm just
13	trying to understand what the point is. Is it that
14	you all were communicating and he just couldn't follow
15	it so he moved down so he could hear it or is it
16	That's what he said.
17	SR. PROJECT ENGINEER BARBER: Okay.
18	SPECIAL AGENT NEFF: And that tended to
19	work against him. He figured that out in hindsight
20.	you're saying?
21	In hindsight, yes. That
22	was his that's what his that's what he came to
23	a conclusion on.
24	SPECIAL AGENT NEFF: So if that statement
25	is attributed to him, you think that's what that's

1	about, it was afterward, the statement of, "I had no
2	control over the evolution."
3	No, no. He never said,
4	"I had no control over the evolution."
5	SPECIAL AGENT NEFF: Okay.
6	I'm saying that he felt
7	that it contributed to what happened, the fact that he
8	was down on the floor.
9	SPECIAL AGENT NEFF: His physical
10	placement.
11	His physical placement,
12	yes. He never said that he lost control, no.
13	SPECIAL AGENT NEFF: Okay.
14	SR. PROJECT ENGINEER BARBER: All right.
15	So let's
16	SPECIAL AGENT NEFF: Did he
17	SR. PROJECT ENGINEER BARBER: I'm sorry,
18	go ahead.
19	SPECIAL AGENT NEFF: Were you going to go
20	to a different incident?
21	SR. PROJECT ENGINEER BARBER: No, I'm
22	staying with it, I just want to move ahead to a little
23	bit more on the training.
24	SPECIAL AGENT NEFF: Yes.
25	SR. PROJECT ENGINEER BARBER: All right.

So you were taken off shift and put in some sort of remedial program, is that correct?

Right. And we weren't taken off shift until -- we got off Monday morning and it was St. Patrick's Day. We got off Monday morning and we were supposed to go take the shift again Thursday days.

SR. PROJECT ENGINEER BARBER: Okay.

night that we had been taken off shift, so this -- it wasn't an immediate thing. It was something we found out prior to taking the watch the next day.

SR. PROJECT ENGINEER BARBER: Well, I mean that's kind of in the eyes of the beholder, right? I mean you were taken off shift prior to your return to your normal schedule shift duties. And so from an outsider's perspective that's what an outsider would see. Whether it was actually done Sunday night right after this occurred or Wednesday just prior to you returning to shift, from an outsider's perspective it all looks the same because your next scheduled return to shift on this day and you were taken off shift prior to your return to shift.



Well, most of us were.

The reactor operator was not.

1	SR. PROJECT ENGINEER BARBER: And why
2	wasn't he taken off?
3	Well, he was taken off
4	shift, but he was not taken off at the same time we
5	were. I guess it was an oversight. He came out with
б	us to the training center about a week later, several
7	days later.
8	SR. PROJECT ENGINEER BARBER: Okay.
9	And he was in remediation
10	with the rest of us.
11	SPECIAL AGENT NEFF: Did you say who that
12	was?
13 .	(phonetic).
14	He was the gentleman who was in helping us out on
15	Sunday night.
16	SPECIAL AGENT NEFF: Okay.
17	SR. PROJECT ENGINEER BARBER: What was
18	your let's talk maybe a little bit about your first
19	day in the training, first day or two. You're there
20	on Thursday or Friday, you guys are probably talking
21	amongst yourselves. What was the discussion like at
22	that point as far as what would you have done
23	differently, what could you have done differently?
24	Was there something did everybody kind of
25	acknowledge, "Yes, we screwed this up, we deserve to

Yes,

I mean as

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SR. PROJECT ENGINEER BARBER: Okay. Yes, it was never an Accountability was never an issue. SR. PROJECT ENGINEER BARBER: Okay. Okay. So you guys are feeling kind of -- well, you feel like you handled the Plant fairly well it sounds like. We felt that we did our job and we felt that we responded the way we were That's honestly what we felt. SR. PROJECT ENGINEER BARBER: Okav. So now let's fast forward to Thursday. Thursday you're out in training, you guys are here, you're discussing the issue, probably sharing thoughts, ideas, whatever. Was there any discussion along the lines as, really don't understand why we're here, we felt like we did the right thing"? Oh, absolutely. SR. PROJECT ENGINEER BARBER: Is this a I don't want to say scapeqoat. I mean we were all -- like I said, we felt we had responded the way we were trained and we did a good job, and we did not -- it took a couple days, a week before we came to terms with the fact that the

the Plant. I mean that's what we were told we should have done.

SR. PROJECT ENGINEER BARBER: But yet no one -- that never came up anywhere during the validation or training or -- it sounded like up until the moment the event occurred that had never been discussed, at least I never heard you mention it. Was there any discussion in the training validation that there was a need to have a scram?

I can't -- I don't remember any specific discussion about that only because we were focused on trying to come up with a workable procedure for that plant. I mean we're trying to scram in certain situations.

SR. PROJECT ENGINEER BARBER: Right.

And I mean this event could have taken on a couple of different looks. I mean, like I said, power came up fast, we monitored it and were ready to take action and it turned. It could have come up so fast that it took us up before we even had a chance to do anything. But, no, I mean we were ready to scram but we did not -- at the time, we didn't feel that we needed to and we stabilized. I don't --

SR. PROJECT ENGINEER BARBER: What I'm

set up?

trying to get a sense of -- I'm trying to get a sense of if you felt like that you were in some way dealt with maybe a little bit unfairly because you guys -- you were put in a situation where normally you would have to go through a training evolution to train on the procedure, not to validate the procedure, and because you weren't given the opportunity to, quote, "train on the final procedure," --



Right.

SR. PROJECT ENGINEER BARBER: -- a lot of these questions that might have come up didn't come up because in fact you were validating, you were actually rewriting the procedure as you were going.

Yes. Well, we did feel that way. I mean that was part of our discussion. There was a lot of discussion about what happened that night of training during that time we were out here, there was a lot of discussion about that. And --yes, yes. I mean -- but I don't want to say we were -- it was just -- you know, I mean we have a lot of pride as I mean we have a tough job and we do our best, and we just could not -- it was hard to really understand why we were delimited in our quals and --

SR. PROJECT ENGINEER BARBER: Did you feel

🛮 I don't want to say set

up. I don't want to say set up, because I was --

SPECIAL AGENT NEFF: Who made the decision to do that?

To do the Plant?

SPECIAL AGENT NEFF: To delimit you in your qualifications.

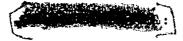
could have been our at that time or it could have been discussions that the two of them had, I don't know.

SPECIAL AGENT NEFF: So between

(phonetic)?

Yes. Yes. Somewhere at that level. Or it may have even been higher than that, I don't know. I don't know if it was (phonetic) or it may have even been I don't know. I don't know where that came from. But I don't want to come off -- believe me, I don't want to come off sounding like I'm griping because that's not what I'm about and that's not what I'm trying to portray here. I'm just trying to answer your questions.

SR. PROJECT ENGINEER BARBER: Okay.



But I mean, yes, it's

natural. We were out here and we felt that we had operated the way we were trained, and we just had a hard time understanding why we were delimited.

SR. PROJECT ENGINEER BARBER: I'm sure if we had asked questions in a different time frame, if it had been like that Thursday or Friday, you might feel totally different than the way you're describing it now because it's (inaudible). And I guess one of the things we're trying to understand in the process is if there's pressures and where the pressures are and where they're coming from.

7C Right.

SR. PROJECT ENGINEER BARBER: And, you know, we talked -- Eileen had mentioned some time pressures and we kind of talked about the sequencing and whether there was an option to put things off.

Right. Well, I mean I have -- I've got to be honest, you always feel -there's always -- you always feel pressure to, like especially in this case, to -- you know, the organization is coming together to try and work this plant and you want to support the Plant and do what you can do to make it successful, and there was time pressure to get back to the Plant that night, and there was time pressure to come up with a good plan

within a certain amount of time, and the organization 1 had decided that it was going to be done on Sunday 2 night. And I don't know how all that was planned out or how that all came into play, but I mean that was the -- I don't know that -- I can't speak for who was making those decisions or what they were thinking but maybe in their mind they felt that, "Okay, we're stable now with this bypass valve, but maybe being here isn't a desirable condition for an extended period of time." I'm sure that played into it. don't know what else went into those discussions at that level. SPECIAL AGENT NEFF: Were your interactions limited to Yes. SPECIAL AGENT NEFF:

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And from your understanding, he wanted to move forward from Saturday night to get you to be able to perform this on Sunday.



SPECIAL AGENT NEFF: That was where he wanted to go.

Yes. Yes. And I'm sure is feeling the same type of thing, that this thing was scheduled to go off Sunday night and we needed to do what we could do to support it.

SR. PROJECT ENGINEER BARBER: Let me kind of follow up on what you just said about scheduled to come off. You know, one of the things that we've heard a lot about is competitive pressure with the evolutionary change of the industry and increased cost competition. Nuclear, to be viable, has to -- we have to challenge old paradigms and we have to forge ahead and keep asking why, why, and maybe there's been a little bit of a shift in why something's safe to why can't we do something? Is it your sense that there was some pressure in this instance that may have come from that side of things, that it was a competitive pressure to get the Plant back up sooner, generations



SR. PROJECT ENGINEER BARBER: -- we're losing an extra day of generation?

No, no. I can honestly tell you it was not that. That was -- I believe that. I believe that it was not a turn the Plant around and get it back up and produce power. I think it was more or less driven by the fact that, okay, this is where we're are, we're stable, but it's not a place that we want to be for an extended period of time. And there are -- like I said, I don't know what those

discussions were, but you're at risk too. If you're in a configuration that you would not normally be in and had never been before. So I believe that the best intention was to try and perform an evolution that was going to allow us to correct the problem and put us in a more reliable configuration or condition. I believe that's what it was based on. I don't think it had anything to do with production, absolutely none.

maybe not in this instance but in other instances have you felt any, what you would call, unnecessary or unusual production pressures where you felt like, okay, there's always going to be some amount of pressure, as you describe it, to keep the Plant up, keep the Plant online, to run the unit as a business, but have you ever been exposed to a situation where you felt like this is crossing the line, this pressure is really unnecessary, we're pushing too hard?

would certainly convey that. In the past, I mean, like I said, just going back to the normal work week activities, production is a huge -- I mean there's a lot to do day in, day out. I don't know if a lot of people realize what it takes to run one of these units on a daily basis. And when I say pressure, let me

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speak from a personal standpoint, I don't know if you've ever seen work control in a power plant but basically work control is one guy, you switch off, one week you had the control room, one week you had work control. And that one individual is responsible for everything that happens in that power plant as far as processing the work, everything comes through him. I&C, Mechanical Maintenance, Engineering, everything comes through one guy. And there's a lot of activities that are scheduled and there's a lot of emerging items that come up and that go through one guy, and it's a lot. And then on top of all the scheduled work you've got pre-job briefs that you have to handle. Now that we have more operators qualified we're getting some extra help because we've got an extra SRO on shift to lighten that burden, but it was not like that, it was not like that in my first couple years on shift. So I mean the pressure was -- it was a lot of pressure to make sure you maintained the schedule. But I mean if there was ever an issue with safety or personal safety, that would -- production would not, at least within the past couple years since incident, would not have caused us to continue to just move on in the face of unsafe conditions, industrial or nuclear.

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SPECIAL AGENT NEFF: You don't feel that.

Well, you always feel --

I still feel production, we all feel production. mean it's -- you know, when you turn over to another shift there's still that unspoken thing there that you want to look good for what you turned over, did you guys get the work done today, how's it going to impact us tonight? I mean everybody wants to pull their load or their share. It's there but it's not to the point where it's going to impact safety. It's not, it's not, and I might have had a little bit of a hard time saying that three or four years ago, but I mean there's always pressure there to meet the schedule, Whas told there always is. But we're told, I mean us, he said, and he reinforces this constantly, he comes out here every time we have training, "Yes, we're a power plant, we're a nuclear power plant and we're in the business of making electricity. business." But he said at the same time that there's not -- he said, "That is a distant second to safety." He said, "If we cannot complete our work safely and without incident, it's just not -- it's a distant It's just not where we're at today."

I mean I've seen in a big shift since I've been on shift. I mean I think we're headed in the

right direction, I really do. I think our work force mentality, especially within is that way. Our work management's getting better as far as scheduling activities to make the work weeks go more smoothly. We're getting more support from the rest of the organization. I mean Operations has the best -- I think the best concept, the best mind set with regard to that out there, and it's filtering out to the rest of the organization as they deal with us and as they get the word from their managers and as our Ops managers put that word out. But I feel better today than I've felt at any time in career, honestly.

SPECIAL AGENT NEFF: Okay.

There's still issues out there. I mean there's always going to be issues and conflict.

SPECIAL AGENT NEFF: You're seeing it as three to four years ago was -- if you were going to chart it, that would have been its lowest point, three to four years ago?

Well, since I've been in my lowest point since I've been in

SPECIAL AGENT NEFF: Okay. When you

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started.

started.



When I started.

SPECIAL AGENT NEFF: Back when you

So I only have that to gauge it, but I think that -- like I said, I just think we've evolved to the point where we're working to where we need to be safety-wise and --

SPECIAL AGENT NEFF: You see it more or less coming together --



I do. I do.

SPECIAL AGENT NEFF: -- in a positive way.

I do. And there's a lot of -- and it's not -- I mean I've been through a lot I mean with this incident in March. I mean that was extremely painful from not only experiencing it firsthand but also the remediation process, not a pleasant experience. And just from what experience personally and where I've seen us come and see a shift in the things we're trying to do, especially with our preparation and our briefs and getting more manned up on shift and the safety approach we're taking, Ι it see as marked improvement. I think it's going to -- it seems to me like it's going to continue that way. It's not -- I

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mean it's a culture thing, it's culture, and culture doesn't change overnight, but I can honestly say that I'm seeing that type -- moving in that type of direction.

SR. PROJECT ENGINEER BARBER: I need to ask a couple more questions. I hate to keep coming back to the event but I want to ask --

No, that's fine.

SR. PROJECT ENGINEER BARBER: -- you some things around that, some other points. There was -and you may not have any awareness of either one of these two things, but I want to find out. Supposedly on Monday there was -- maybe it was Monday or maybe it was actually before you got on, the timing is a little confused, but there was a discussion -- when the turbine bypass valve was originally found to be stuck or determined to be stuck, there was a discussion on the part of senior managers about what to do about it, was supposedly between may have been there, maybe even may have been a couple other people. may or may not have been there. was a mix of different folks and the focus of the discussion is what to do about the problem, what is the problem, what's the nature of the problem, is the

turbine bypass valve in fact stuck, is it an anomaly, 1 is it in fact we think -- it looks like it's partially 2 open but maybe it's not. Did you ever hear anything 3 about a big debate about what to do with the Plant, 4 5 where to move the Plant in response to that, the original event that led into --6 7 No. No. Because, like I said, it happened Friday night and then I'm trying 8 to remember what part of Friday night is when we 9 10 synced the turbine. I guess somewhere 11, midnight time frame thereabouts from what I'm remembering. 11 SR. PROJECT ENGINEER BARBER: And then the rest of the night we were -- pretty much we weren't going to do 15 anything else, we were stabilized. And, apparently, 16 those discussions went on Saturday day --17 SR. PROJECT ENGINEER BARBER: Okay. ·-- and the decision was 18 made to come up with a plan. We were sleeping during 19 20 those hours. SR. PROJECT ENGINEER BARBER: Did you get 22 And I got a call, took the call I guess in the afternoon while I was 25 still sleeping that I needed to report to the training

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1	center instead of going right to the Plant.
2	SR. PROJECT ENGINEER BARBER: I see. So
3	when you saw your relief that night was it the same
4	person that was on days or was there an intervening
5	shift?
6	I think there was an
7	intervening shift because it would have been too long
8	for yes
9	SR. PROJECT ENGINEER BARBER: Okay.
10	Because it was just too long a period of time?
11	Yes.
12	SR. PROJECT ENGINEER BARBER: Was there
13	any do you recollect any discussion about being
14	some big debate about where to move the Plant, whether
15	to take the unit offline or how to do that? Was that
16	discussed? I mean other than the fact you knew you
17	had to go into training, was there any mention of
18	that, either that day or at some future time?
19	You mean when I came back
20	from training that night?
21	SR. PROJECT ENGINEER BARBER: Right.
22	Right.
23	No, not really, because
24	the guys who we ended up relieving that night knew as
25	much as we did from the standpoint that we're going to

So

be going after this thing Sunday night --1 SR. PROJECT ENGINEER BARBER: 2 🎎 / -- as far as, you know --3 SR. PROJECT ENGINEER BARBER: Okav. 4 you don't have much knowledge about what might have 5 6 been said during the day and whether --No, but, obviously there 7 was a lot of -- the procedure was developed during 8 Saturday day --9 SR. PROJECT ENGINEER BARBER: 10 11 -- with the intent -see, my whole impression of the way the thing went 12 down was engaged the people on Saturday, put the plan 13 together, procedure, whatever needed to be done, train 14 on it Saturday night, final approvals, SORC on Sunday 15 day, implementation on Sunday night. 16 17 SR. PROJECT ENGINEER BARBER: Okay. And that's the way it 18 went down. 19 SR. PROJECT ENGINEER BARBER: Okay. Okay. 20 All right. So did you later find out anything more 21 about any of the lead-in discussions? 22 I mean it sounds like you didn't know at the time but was there 23 anything after the fact where you were saying, "Oh, 24 25 yes, there was a big debate about what to do with the

Did that come up at all? 1 Plant." Not about what to do with 2 Plant, no, not that I was aware of. I think as far as 3 4 the crew status after that, that that was probably the 5 case. SR. PROJECT ENGINEER BARBER: Okay. 6 7 It was at a higher level. 8 SR. PROJECT ENGINEER BARBER: Okay. . 9 right. 10 SPECIAL AGENT NEFF: In terms of the disciplinary actions you're talking about? 11 12 Yes. SR. PROJECT ENGINEER BARBER: 13 SPECIAL AGENT NEFF: What about in terms 14 of throughout any of the incidents that were tied into 15 that, I guess it's the 15th, 16th, 17th, in that time 16 17 frame? Are you aware of any challenges by senior 18 management on Ops management and the direction they planned to go? 19 From the time we got off 20 Monday morning until --21 SPECIAL AGENT NEFF: Throughout, from when 22 23 it started. SR. PROJECT 24 ENGINEER BARBER: She's 25 talking about -- Eileen's talking about the 15th would

have been Saturday, I think. March 15 would have been 1 Saturday. 2 SPECIAL AGENT NEFF: Right. 3 SR. PROJECT ENGINEER BARBER: Sunday would 4 have been the 16th, and then the 17th, as you said, 5 was St. Patrick's Day, it would have been the Monday. 6 7 SR. PROJECT ENGINEER BARBER: Monday you were off then for a few days until 8 Wednesday? 9 got off We 10 We were supposed to come back in Thursday morning. 11 days. 12 SPECIAL AGENT NEFF: But in that time 13 14 period were you aware of any challenges by senior 15 management or challenges between them and Ops management in terms of the direction that the Plant 16 would be going? Did they challenge questions? 17 During that time, no. My 18 understanding is the way that this came down was that 19 I guess it was Tuesday, could have been Wednesday, 20 there was some type of SORC or management meeting and 21 addressed the issue and apparently 22 not aware of what had happened, and I guess 23 questioned it. And that's when it -- I guess the 24 discussion was made about our qualifications and what 25

actually happened that weekend. My impression was that I guess upper management did not fully -- I don't want to say weren't fully aware but did not understand what exactly had happened that weekend. Actually, I don't think was aware of it at all. So I don't think there was any type of discussions up until that point.

SPECIAL AGENT NEFF: Okay. What about decisions being made by Operations in terms of starting up or shutting down to effect this valve repair? Are you aware of any discussion or debate between senior management and Ops management on where they would go with that?

When the valve was still open -- you mean before we shut down. I don't know of any discussions that went on, I really don't. I don't know. I don't know. I had heard that -- just going off second hand, I thought I heard something to the effect that maybe we were going to try and do something online as opposed to shutting down, see if we could effect repairs that way.

SPECIAL AGENT NEFF: Where was that coming from?



You know, I don't recall.

I just -- in discussions with people at the Plant --

11 20

1	I really don't remember. I don't know if I had heard
2	from a represented employee or a mast associate, I
3	really don't remember. But I mean it wasn't it was
4	just it was probably a mast associate.
5	SPECIAL AGENT NEFF: Because the
6	discussion would have been about considering whether
7	the repair could have been done online as opposed to
8	shutting down.
9	Well, I think they were
10	exercising other options, just
11	SPECIAL AGENT NEFF: Considering
12	everything?
13	Right. Right. I mean
14	that's all I know about it.
15	SPECIAL AGENT NEFF: Who would be a mast
16	associate in a position to discuss that, though?
17	Well, when you say in a
18	position to discuss it, I mean peers, my peers. I
19	probably heard that from one of my
20	And I really don't honestly don't recall who
21	it was or what the details were. And there was no
22	discussion that I had with the individual, I just
23	remember hearing that.
24	SPECIAL AGENT NEFF: It was somebody who

was involved in the --

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SPECIAL AGENT NEFF: -- ongoing decisions in that time frame?



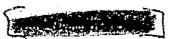
I don't think so, no.

SPECIAL AGENT NEFF: So you're getting something from somebody --



Second hand.

SPECIAL AGENT NEFF: -- second hand from somebody who got it second hand?



Yes.

SPECIAL AGENT NEFF: That's what you're saying?

Right. I mean it could have even been someone from Engineering who -- like I said, I don't remember. I could have been someone who was involved from the Engineering standpoint that they were looking at options and maybe it could have been a shift engineer. I really don't remember. think that information was anything that was something that had to be safeguarded or anything like that, just discussions, general discussion.

SPECIAL AGENT NEFF: Do you have anything more on that?

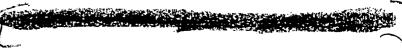
SR. PROJECT ENGINEER BARBER: No. I want to just back up to the diesel problem, you mentioned

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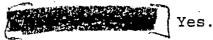
the jacket water. I want to ask a couple more followup questions on that. You said you were the



SR. PROJECT ENGINEER BARBER:



SR. PROJECT ENGINEER BARBER: Help me understand what your limitations are as far as when you do that. Can you authorize work?



SR. PROJECT ENGINEER BARBER: Does that have to be run through the control room or can you do it and then just like inform after the fact? How does that work?

Oh, no. No. I had to -everything that goes on I brief the control room.

They know everything that come through Work Control.

SR. PROJECT ENGINEER BARBER: Do they have to sign it or can you sign and that's sufficient?

I sign it but what happens is I mean I will have briefed them on what's happening or what we're going to do prior to doing it, because obviously they are more in tune with what's going on in the Plant operationally. I'm managing

work. And if they have any issues in a case like that, then they would tell me and we would not deliver or hold off.

SR. PROJECT ENGINEER BARBER: So what's the sequence? Somebody comes through -- let's say that there's a corrective maintenance item, let's use I&C because you're real familiar with it. Some instrument somewhere, let's say parts of it in the control room, parts of it in the field, somebody comes into you and says, "Hey, I want to work on this. It's in the work week schedule. I want to do this. It affects something that may be addressed by tech specs."



SR. PROJECT ENGINEER BARBER: Kind of just in very brief summary form discuss how the sequence of events would go to release the work and who has to be involved at various stages.

Well, what would happen is they would -- right, they would come through Work Control first, and it depends, it would depend on how busy I was in Work Control. Ultimately, it's always going to end up in the control room.

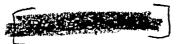
SR. PROJECT ENGINEER BARBER: Okay.



I mean if I have time,

and often I do, I'll look at the work and then I'll go in there with the guy and I'll brief the control room crew --

SR. PROJECT ENGINEER BARBER: Okay.



-- or at a minimum CRS --

SR. PROJECT ENGINEER BARBER: Okay.

what's going to be -- what activities are going to be taking place, how that would impact him tech spec-wise and we'll have a discussion. And if it's something that is no impact, then he'll okay the guy to do the work. The ultimate approval goes through him. I can -- I mean I approve tags, I sign work on, but the work that I sign on still have to finally be approved by the Control Room Supervisor. And like I said, I'll do that when I'm not tied up with other things. If a guy comes in and needs to perform corrective maintenance on whether it be tech spec or non-tech spec equipment, I mean I may just tell him to go right on in the control room and talk to the CRS directly.

SR. PROJECT ENGINEER BARBER: Okay. Whose job is it or who is supposed to -- responsibility is it to enter the information in the tech spec action statement log?



The CRS.

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CRS.

any other responsibility other than to brief them? If something does affect the tech spec component and you're the is that your limitations of your responsibility or do you -- is it also your responsibility for you to enter the information in the log and be fully aware and cognizant of the nature of the work?

Well, as an example, if a couple containment isolation valves are tagged for -- like motor-operated containment isolation valves are tagged for limited torque PMs or thermal overload type work, right --

SR. PROJECT ENGINEER BARBER: Okay.

tagged, Maintenance will do their work and then we have to retest those components. So I mean that work comes through me so I know before I let those guys go stroke those valves that I need to ensure that my inboard or whatever the situation may be, outboard containing the isolation valve is closed prior to stroking these valves so that I have isolation.

SR. PROJECT ENGINEER BARBER: In doing

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that, in understanding the tech specs, do you have any 1 responsibility to evaluate conditions you find as 2 operability issues or potential operability issues? 3 Oh, sure, sure. 4 5 I know the work that's coming through. SR. PROJECT ENGINEER BARBER: Okay. 6 The CRS may not know the 7 I'm responsible as he is 8 work. to ensure that we have compliance with tech specs. 9 But I mean I'll talk to him about that. 10 SR. PROJECT ENGINEER BARBER: Okay. 11 I mean it's -- he is 12 responsible to make sure the LCO gets implemented and 13 14 the times are tracked and he has complete understanding of where he's at relative to the tech 15 16 specs, but I have to communicate that to him in cases like the retest of the containment isolation valves. 17 SR. PROJECT ENGINEER BARBER: 18 Now, if you have normal 19 20 NRC surveillances that come in, typically what we did is we'll look at tech specs out at Work Control first 21 and then we'll write it down on the sheets that the C 22 techs use and then they'll bring that information into 23 the control room and it will be looked at a second 24 25 time. A1170

SR. PROJECT ENGINEER BARBER: Okay. All right. Now, with that background, let me go back over the diesel generator issue with the jacket water inner cooler leak. You said you were in Work Control that week, if I understood you correctly.



SR. PROJECT ENGINEER BARBER: And the leak was discovered, what, Sunday or Monday or something like that, and then there was some repair activity that took place during the week and a retest and --



SR. PROJECT ENGINEER BARBER: What was your involvement with that as far as from an operability standpoint? Were you the one going into the control room saying, "This is potentially an operability issue"? How did that --

Well, what it was was -from what I'm remembering is we didn't identify and
shut it down. We were in an outage and it was worked
and then it was problems coming out of the outage
with it. So I had the tag, the initial tag release
for the maintenance run and we ran it. I was out in
the field with my equipment operator, there was a
couple guys out there, and actually there were a lot
of people out there, there was Engineering, and that's

1	when we found it.
2	SR. PROJECT ENGINEER BARBER: Okay.
3	So we Engineering
4	wanted to you know, we shut it down and tagged it
5	and that was my extent of it.
6	SR. PROJECT ENGINEER BARBER: Did you get
7	involved with any kind of additional assessment of the
8	leak? I mean I think you noted you said that you saw
9	it beforehand and it was leaking a certain amount and
10	then you thought, well, it's about the same or maybe
11	a little bit worse, but, certainly, it didn't stop.
12	Well, I saw it when we
13	returned it to service on a maintenance run.
14	SR. PROJECT ENGINEER BARBER: Okay.
15	And then I retagged it
16	and then my shift was done.
17	SR. PROJECT ENGINEER BARBER: Did you in
18	your own mind say, oh, it's still in Op?
19	Oh, yes. Oh, yes. We
20	didn't have to put it operable.
21	SR. PROJECT ENGINEER BARBER: Okay. Was
22	there any discussion on the part of the Engineering or
23	anybody else saying, "Well, we think we were too
24	strict with our first call. Maybe we were too
25	stringent." Did you get involved with any discussions

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like that?

No. Ιt remained inoperable. There was no question. Because coming out of an outage until it -- the way it typically would happen is that we have a maintenance outage on a diesel, we'll do a maintenance run and do our retesting on that maintenance run. And then we still won't declare it operable. We may declare it available for (inaudible) purposes, but we have to run a surveillance test after that maintenance run and all the retests are done SAT to make sure it passes the surveillance test. Then we'll declare it operable.

SR. PROJECT ENGINEER BARBER: Okay. And you said you were off shift? Were you like going out of the sequence then, so you weren't involved with it from then on?



SR. PROJECT ENGINEER BARBER: Okay.



SR. PROJECT ENGINEER BARBER: All right.

Okay.



/ But when I left we were

in the LCO. I think we were in a 12-hour shutdown.

SR. PROJECT ENGINEER BARBER: All right.



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After 12 hours we'd have

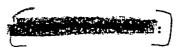
to shut down.

SR. PROJECT ENGINEER BARBER: Okay. I've got a couple more things I wanted to ask about.



Sure.

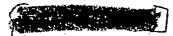
SPECIAL AGENT NEFF: Do you need a break,



No, no, I'm fine.

SPECIAL AGENT NEFF: Okay.

SR. PROJECT ENGINEER BARBER: Hope Creek was given a power uprate over the --



Yes

SR. PROJECT ENGINEER BARBER: -- last year or two or something like that? And you were licensed to create a thermal power change from, what, 3293 megawatts thermal --



) то 3339.

SPECIAL AGENT NEFF: -- 3339. Were you ever involved with a situation where there was a question about what to do when there was a loss of inputs for specific computer monitoring for the -- I think cross flow and maybe --



Sure.

SR. PROJECT ENGINEER BARBER: -- some other inputs that helped you -- allowed you to go to that new higher power level? Do you recall anything

of that nature?

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Yes. Yes, I do. Yes, I remember one time we lost our link between our processor computer which monitors thermal limits and provides input from all our heat balance stuff into our (inaudible) computer system.

SPECIAL AGENT NEFF: Do you recall when that was?

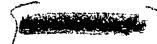
It had to be, gosh, I guess a year and a half, maybe two years ago. Ιt could have been up to two years ago. And so I mean the things that were lost were -- we even had loss of rod position indication with some of our rods. But we -- and I'm trying to remember, I think cross flow was I was in a bad situation because I was the and I remember the RO was actually got pretty excitable and he said, "I have indications of multiple rods drifting," and that's a tough report to take. And he was pretty excited and I remember saying, "Understand indications of multiple rod drifts." We looked at alternate indications, APRMs; hard wires, which were fine. Turbine first stage pressure, everything was stable and we did not take them all into shutdown because it wasn't warranted, but I mean we verified that we were stabled and then after some

1	discussion we back powered down about a percent or
2	back down to the I can't remember if it was we came
3	down to 99 or 98. I don't remember the exact details
4	of it but I've been going through it before.
5	SR. PROJECT ENGINEER BARBER: Okay.
6	And we have some pretty
7	good guidance now that we didn't have back then in our
8	alarm responses for that type of situation.
9	SR. PROJECT ENGINEER BARBER: Now you say
10	you back powered down 98 or 99. Was that in that
11	event and was there any other events where the actions
. 12	were different or was it that's just the action you
13	took?
14	Well, let me say this:
15	I think my recommendation was, based on what I got
16	from my operators was to back the power down.
17	SPECIAL AGENT NEFF: Who was the
18	who was giving you that reading?
19	oh, gosh, it was
20	a while ago.
21	SPECIAL AGENT NEFF: Want me to get my
22	list out? What shift would that be?
23	Well, he was filling in.
24	It was echo shift but he was he was filling
25	in. It wasn't a normal member of the shift?
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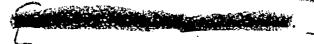




SPECIAL AGENT NEFF:



(phonetic)?



SPECIAL AGENT NEFF: We've got two

Right. So this is what we had, we had an initial situation where I got multiple inputs from operators feeling that we should back power down, and we didn't do that initially, we didn't do that, and that caused some consternation.

We looked and evaluated and I actually felt that it would be conservative to do that.

SPECIAL AGENT NEFF: Where was the consternation when you didn't initially down power?

With the operators, with the NCOs. And I had talked to and told him that I wanted to back power down just to be on the conservative side, and he said, "Well, we're going to hold off on that." And there was some discussion.

SPECIAL AGENT NEFF: How did you feel about that?

I wanted to back it down. But then we had some discussion as opposed to just jumping into it and not

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taking a look at things. Like I said, we looked at other indications, looked at APRMs, we looked at first stage pressure, and because it wasn't done initially guys had some issues with it. I mean it was -- they wanted us to come down and I was with them, and then we talked about it, I talked about it with and we brought in/ (Phonetic) and talked about it a little bit and decided that it wasn't something that we had to do right away. SPECIAL AGENT NEFF: Did you agree with that? After we looked at our other indications, I felt that we were okay with that. SPECIAL AGENT NEFF: So after you had the discussion with and And about it, right. SPECIAL AGENT NEFF: But apparently it still left some consternation you were calling it? Well, yes. wrote a notification on it, and I remember him writing it. I don't know exactly what it was about other than the fact that -- I don't know what the detail in it other than the fact that I guess he expressed the fact that he felt that we should have came back down power

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we talked

I know

a little bit.

SPECIAL AGENT NEFF: You had indicated something changed in the procedures there. What was it that changed?

Yes. I mean if you look at our procedures now, I don't know if it was as a result of that incident or not because this happened a couple times, not just one time. We have additional guidance that we get from Engineering to a situation like that. And it's in our alarm response, and we have additional guidance in, I want to say, IO6, which is our power operation procedures.

SPECIAL AGENT NEFF: How would it be handled? What does it call for now? Do you power down or do you rely on the other partners?

It's lengthy. I think we have an hour before we need to do anything, but don't quote me on that. I mean that's where I'm going off the top of my head. I'd have to look -- that's not an immediate action type of thing, so that's not committed to memory. But I believe there's some time we have to evaluate things before we do anything with power. Because you have to understand too that, sure, you may come down a percent or two but you're moving the Plant at the same time. There is potential issues

1	114
1	associated with moving the Plant even though that may
2	sound like a minor adjustment, and it is.
3	SR. PROJECT ENGINEER BARBER: Weren't you
4	in fact coming up at the time, coming up in power when
5	this happened?
6	No. We were to the
7	best of my recollection, we were stable at 100
8	percent. There may have been a different time,
9	because like I said, I know that this has happened a
10	couple of times at least.
11	SR. PROJECT ENGINEER BARBER: Okay. I
12-	mean how hard an evolution is it to lower power by
13	one?
14	Oh, it's very easy, it's
15	very easy, but what you're doing is what we'll
16	typically do in that case is just back on a research
17	low.
18	SR. PROJECT ENGINEER BARBER: Okay.
19	And it's nothing more
20	than tapping a button.
21	SR. PROJECT ENGINEER BARBER: Okay.
22	But
23	SR. PROJECT ENGINEER BARBER: Let me ask
24	you a question about how you felt at the time. You
25	sounded like the operators had an opinion, they were

sharing it with you, they felt like it's conservative, let's just back power down a percent or two. Sounded like your initial thought was, yes, that sounds conservative, let's do that, and then there was --

gone off what -- based on original report, we would have scrammed the Plant, and that wasn't the right thing to do.

SR. PROJECT ENGINEER BARBER: Okay.

excitable and I remember -- I distinctly remember going out onto the floor and saying, "Stop a minute, see what we've got," because there weren't any alarms going off or anything like that. Everything appeared to be stable so we looked at our data and basically we were stable. But what I recall about that incident with was that he had crossed the line in his mind where he was -- you know, this is what was happening and even though he knew we were stable and we weren't really having a problem with rods drifting in, that he was going to stay on this line.

I mean I even heard a statement to the effect that, and I'm paraphrasing here, "Just wanted for the record that we made the recommendation that we should back power down." And I mean I didn't come

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right out and say, "Hey, yes, we need to back power down." My initial thing was assess it and I did assess it, and, like I said, I don't remember the details of what was up with cross flow other than the fact that we had lost a link between our PPC and our (inaudible) and I felt it would have been conservative to come down a percent. And after talking to those guys that would not have hurt us, that would not have hurt us.

And I turned around and I told I talked to the guys that -- because he wasn't in there initially, he was back in the office back there, and he said, "Hold off on that. Hold off on that." And then there was some discussion there and he got involved, and then the decision was made not to do that initially, not to come down, back it off right And I want to say that that was probably the away. time that happened since our cross flow installation, and so it was a place none of us had ever been before, and I'm sure that added to why was feeling the way he did. But I mean wasn't the only -- there was another operator and I don't remember his name or who it was that also was in alignment with as far as backing power down a percent or two.

It sounds

You said,

The communication

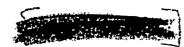
Yes.

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link had gone down is what it was.

SR. PROJECT ENGINEER BARBER: Okay. Right. But, in turn, you say, well, okay. Well, not withstanding that, at some point there was some acknowledgement that, yes, there was some loss of indication --



Right.

SR. PROJECT ENGINEER BARBER: -- and maybe some uneasy feeling about staying at right way where you were, a discussion between the ROs and yourself and then you're thinking, yes, maybe it's good to do that. Did you feel --

Well, this is where I was coming from, okay? I mean we didn't do anything to change power, we were riding on happy at 100 percent.

SR. PROJECT ENGINEER BARBER: Okay

evolutions going on at the time and it was a computer communication issue. Now, we didn't know that initially, okay, but I mean after we assessed it, and there was still data available on our plant process computer, it wasn't that we had lost it all but there was still certain things like first stage pressure was there and the hard wires are totally independent like our APRM indications and we were going off that. But

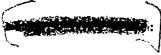
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based on that and it was just an indication thing, a computer thing, there was no -- and this is the thing that talked about, what has changed, nothing has changed. We had a problem with a link between our two computers here and we still have turbine first stage pressure, we still have APRMs and I mean not to say that we weren't going to reduce power at some point but it's not something we needed to do right away. We needed to understand what's going on before we do that. That's where he was coming from.

And then, you know, after those discussions, I was okay with it. I was okay with it. I was. I was. But at the same time, initially, when things are happening, it's happening fast and you're getting these kind of reports, and you get a guy who's very excitable, it would have been no harm in backing power down a percent. But we were okay to stay where we were at also.

SR. PROJECT ENGINEER BARBER: Okay. Okay.

response to that was hold off. You're saying it didn't mean he wasn't going to consider at another point --



Oh, absolutely.

SPECIAL AGENT NEFF: -- he just didn't

want to do it at that point in time.

7 20 00 01100 900110

"We're not going to do it," he just said, "Just hold off for a minute." And I think that was the right thing to do.

SR. PROJECT ENGINEER BARBER: Okay. Okay. Let me back up to one other issue, it's a new issue, we haven't talked about it yet. There was a report that we have received regarding some problems with off-gas, off-gas system and having a high flow condition.

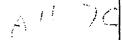


SR. PROJECT ENGINEER BARBER: Were you involved with that at all?

No, that one I wasn't.

I know what that's about, though. I don't know whether it would be -- my understanding was that our procedure has a limit of 75 SCFM gas flow, and we typically exceed that when we're going initial vacuum on a condenser, and that is actually an expected condition but it was not in our procedure. Our procedure basically says, or said, that we cannot -- we're not supposed to operate above 75 SCFM. And our operators took the hard line on that and said -- and just to give a history on that, a lot had come down

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recently prior to that about procedural compliance and making sure we follow procedures to the letter and obviously we did not meet that stuff in that procedure that allowed us to continue.

And that caused a problem because theory hand the Union's perception is on one that management's telling us to follow procedures. we can't follow the procedure as written and now they're saying, well, just -- we're not going to comply with that step, so to speak. Not in those words, but, okay, we're going to evaluate this and see if this is an expected condition even though the Then maybe we need to get the procedure says this. procedure changed to reflect the fact that this is expected under these conditions. So I quess to make long story short, we didn't -- we continued operation above 75 SCFM for a period of time, and I guess a number of notifications came out about that from the board operators.

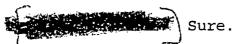
SR. PROJECT ENGINEER BARBER: Isn't that kind of a double standard, though?



Sure, it is.

SR. PROJECT ENGINEER BARBER: I mean in one respect management pushes, "Follow the procedure, follow the procedure," but yet there's a procedure

that may affect generation --



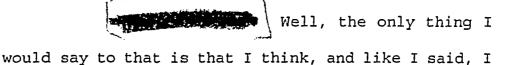
SR. PROJECT ENGINEER BARBER: -- and the guidance isn't prescriptive, so you say, "Okay, well, we'll just evaluate it."



SR. PROJECT ENGINEER BARBER: It's kind of a stalling tactic, a delaying tactic.

Well, that's -- you're right, it is a double standard, and I mean we're making this push to follow our procedures and make sure we have procedure compliance, and there's a lot of things out there, there's probably more things out there that we don't know about yet that we're going to come across and it's going to be the same type of situation, and we're going to have to address them as they come up. But, you're right, the guys' whole point was, "Hey, you're telling us to do this, this is where we're at, and now you're telling us not to comply with a procedural step."

SR. PROJECT ENGINEER BARBER: Could you see how someone might take that as a production over safety issue?



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wasn't the shift it was on, difficult position to be in. I understand -- I mean if you look at it cut and dry, you're right, it's contradictory. However, those conditions are expected for -- that type of off-gas flow was expected for those conditions. That was not an abnormal situation, and you cannot -- it's very difficult to write a procedure for every single situation that's going to come down the line. So I mean I can understand with the knowledge that, hey, this is not an abnormal condition and, yes, our procedure says this. The flexibility isn't put in the procedure, there's not a note that basically saying under these conditions it's acceptable, but I think what happened out of that was they didn't want to spot change. Said pretty much to that effect.

SR. PROJECT ENGINEER BARBER: Well, you can make a procedure change to allow you to do something. The question becomes whether it's the right thing to do or not.

Right. And I'm not arguing that point. I'm not justifying what was done but I'm just trying to explain my understanding of what happened that day. I mean it's a big deal to -- and I'm not talking about production, I'm just talking it is a big deal to take the instruments into shut

down as far as impact to the organization and being online, producing power, that type of thing. And when you know that you're going to be there or that that is just because your procedure doesn't reflect that, it's not like you were in a situation where, okay, I've got this procedural restriction that I'm supposed to operate by and the condition I'm in is not an expected condition.

Having said that, it's not all right to say, "Hey, follow your procedures to the letter and when you reach this value continue to operate." It's not all right to say that. And I'll be perfectly honest, I don't know that I would have done anything different than the shift that was on, I don't know that. It's easier to sit back and say, "Yes, okay, it says this, shut the Plant down." If you've got a problem and you're not supposed to be there, that's one thing, shut it down, but if you've seen this condition 100 times before and you know that that condenser is full of air, you're sucking on that thing and you know you're going to pull in excess of that type of off-gas flow.

SR. PROJECT ENGINEER BARBER: Right.



You know, it's like,

okay, is there non-thinking compliance? I mean is

1	that what we want to be, just take that to shutdown
2	because
3	SR. PROJECT ENGINEER BARBER: No. You
4	want an intelligently comply with the procedures. You
5	described this as if the Plant was starting up. Would
6	the circumstances be different if the Plant was
7	operating at full power and this happened?
8	But, see, that's what I'm
9	saying. That's what I'm saying. If it was not an
10	expected condition and on full power operation, my
11	off-gas flow is about 75, then you need to shut down
12	or whatever the actions are.
13	SR. PROJECT ENGINEER BARBER: There
14	weren't any actions. That's the dilemma, there were
15	no recommended actions other than do not, do not
16	operate above 75 SCFM.
17	Okay. Well
18	SR. PROJECT ENGINEER BARBER: There's no
19	that's my point, what do you do? What should the
20	
21	Well, do not operate
22	means you take the Plant offline. That's what you
23	would do, right? I mean you have the off-gas
24	SR. PROJECT ENGINEER BARBER: Or reduce
25	power or do something to try and get yourself under
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75. Maybe the answer is take -- lower power from 100 to 50. But isn't there some interim measure, somewhere between the two extremes?

Well, actually, we do have an abnormal for, I guess, a condenser vacuum, I believe, and there are some supplemental steps in that abnormal, the right things to do in those type of circumstances.

SR. PROJECT ENGINEER BARBER: Okay.

SPECIAL AGENT NEFF: It seems like you can see -- just looking at this situation, you can see both sides, in a way, where you can -- the operator impressions on this might be right in that they're saying, "We did the wrong thing because we didn't comply." Are you aware of any other situations where they might have gotten that message that we're not going to comply because it would involve going offline?

about, management or union or -- I'm not sure I'm following --

SPECIAL AGENT NEFF: Well, any other situations that might have sent one of these mixed -- you know, it's a message that's saying -- where you can see some justification for it, "Okay, I understand

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why you're upset, there's a procedure, but we didn't follow it in this incident." Not that you were on shift or anything but are you aware of any other situations what would be similar to this, that type of decision making?

There was а situation that talked about feed pump operations at one of our feed pumps, and I don't remember the numbers but it said if you got up to a certain limit on your vibrations and I think it was for actual displacement or actual radial vibration or whatever, that I think you needed to take the feed pump out. And I wasn't on, the feed pump didn't come out and those values were reached, and I think there was a team audit to raise the alarm set point above those I don't know the details, I just know that there was a situation where we approached or reached a limit on vibrations associated with the feed pump, and the feed pump, I believe, needed to come out and it didn't come out right away. And I don't know anything other than that.

SPECIAL AGENT NEFF: Do you know who was on for that, what shift?

Yes. You would -- and that's probably the same individual who was on with



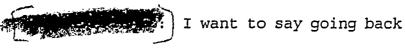


the off-gas. You want to talk to very confident, level-headed and he can give you more detail than I ever could about it because he lived it and it was fairly recently.

SR. PROJECT ENGINEER BARBER: Well, we've gone over a lot of events and a lot of issues and we've probably spanned a large period of time, from very recently to maybe back a year or so, maybe even back prior to that. But thinking back and you kind of mentioned earlier that maybe when you first got licensed things were maybe not as good as they are today. Have you noticed any general trends or anything that in hindsight and reflecting on what was discussed that may have indicated or provided any insight as to why things are so much better now than they were, say, six month ago or a year ago, two years ago, three years ago? Is there something unique or something different about conditions today?

Well, I know that there was a big emphasis on upgrading the quality of pre-job briefs. I mean that was a big --

SPECIAL AGENT NEFF: Starting when?



to last summer.

SPECIAL AGENT NEFF: Summer of 2003.

Three, yes. That's what

I'm remembering.

SPECIAL AGENT NEFF: Okay. Anything else?

That was a big one. And also about doing a better job on post-job briefs.

Now, we still lack there, we're working on that, that's not an easy thing to -- we're getting better there but we're not where we need to be. And that will help us, obviously, when we've got to do a job the next time. I know we've had post-job briefs in the past, a lot of them informal, where the feedback may not have been captured and help us out the next time, but that's one thing we're working on.

Just our overall emphasis on safety. I mean we've got now -- we've got a guy named who was an and he has been taken off shift and his whole purpose in life is safety and he is our and I mean that's what he does. And I mean I think management felt that strong enough about it to the point where we needed to have a dedicated resource for that. I mean gets paid a pretty decent salary, like we all do, and that's what he does.

We do have on each shift individual guys, shift representatives, safety reps, that attend

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meetings occasionally or get feedback e-mail, and they actually discuss that stuff with the crews on shift. And also just what I've seen with in the past couple months with his not willing to settle for substandard equipment and wanted to make repairs, go the extra mile, if you will, to fix problems for good. And --

SPECIAL AGENT NEFF: I don't mean to interrupt you --



SPECIAL AGENT NEFF: Did you want to finish that?

say that I know one of big things is he's pretty grounded as far as the rigor in which we're doing our corrective actions now, like the root causes type stuff, making sure that we fix it right. I mean that's what I've seen. I've seen that. And has only been there a couple months but I've just seen us working toward that even before that, but with it's just -- it's almost like a step change more so than before.

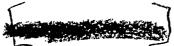
SPECIAL AGENT NEFF: And you pointed that a couple times in terms of you've seen the Plant working toward this what you see as a positive work

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environment.



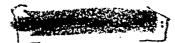
Right.

SPECIAL AGENT NEFF: What I'd like to ask, and I hope I don't lose you here because it's going to be a multiple point, stick with me on the question.

Sure.

SPECIAL AGENT NEFF: We've talked about a couple incidents where you decide -- you were describing it as to be on the conservative side in terms of the power parameters that you did or didn't have back in that incident involving and we talked about the off-gas situation where you had a procedure that says one thing but were not necessarily going to follow it. And then that feed pump, that recent feed pump issue.

You did say, and you pointed out, these are situations that are thrown up to us as look what we've done here.



Right.

SPECIAL AGENT NEFF: This is evidence of non-conservative decision making. The situation recently with the KV switchyard and the multiple repairs that were done you're showing as evidence of a better mentality toward fixing things right and getting on it more quickly.

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## Right.

SPECIAL AGENT NEFF: Do you have any evidence of that in the recent past? Do you have any other incidents where you could say the decision could have been more conservative than what you expected? Do you have any other incidents where there was evidence of that before the switchyard fix?

You mean things similar to things just like the switchyard?

SPECIAL AGENT NEFF: Right, but prior to the switchyard. Can you think of anything that happened in the recent past?

There's so many things that happened on -- it's just all -- I think --

SPECIAL AGENT NEFF: Just so there's no dead air, I'll go off the record briefly, okay? It's 3:24.

> (Whereupon, the foregoing matter went off the record at 3:24 p.m. and went back on the record at 3:25 p.m.)

SPECIAL AGENT NEFF: Back on. It's about 3:25 p.m.

Yes, we had our refueling outage this past spring, and we had issues with drywell floor drain leakage turning up,

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actually made a decision to come down right before the 1 forced outage to fix that problem. Now, we have 2 3 procedural guidance on when to take action but we've been conservative in doing those, taking the actions 4 like in this case to come down. 5 SPECIAL AGENT NEFF: Was that in that 6 March time frame? 7 8 Yes. It was before the 9 I mean that was one example. forced outage. I know that in recent forced outages, especially the December 10 one, that we have, like I said earlier, gone into the 11 12 drywell and done much more work than we normally would have done. 13 14 SPECIAL AGENT NEFF: December 2003 this happened. 15 thousand three, 16 Two I think that's probably about it for now. 17 right. 18 SPECIAL AGENT NEFF: That's what comes to mind? 19 20 Yes. And not that there aren't more things but I mean it's just -- and like I 21 22 said, it's just apparent to me, it's obvious to me that we're trying real hard as an organization to 23 effect a positive change here and to make a difference 24 and fix things and to create a more safety conscious

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environment. And I don't know how else to convey that to you, I live it every day. And there may be more examples here but I just can't recall any at this time, but it's just a feeling I get. And I see things, give you some examples, but a lot of things that we're talking about with regard to this loss of this computer indication, this link, I mean I think that was like two years ago in the -- we've come a I haven't been briefed by long way since then. anybody. I mean I haven't -- my management doesn't even know that I'm here today other than the fact that I questioned them about what was happening. mean that's just the way I feel.

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SPECIAL AGENT NEFF: We're getting your honest assessment.



That's what we're SPECIAL AGENT NEFF: asking for and that's the expectation under oath.

Right. And I'm giving you everything to the best of my recollection. A lot of these -- the details of a lot of this stuff are fuzzy to me because it's been a year or more or close What I've seen is with regard to -- and to a year. like I said, I was in the union before, and for the most part I mean we have a pretty good rapport with

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our union people. I get along great with my equipment operators and board operators and you have to have that, but when you have a union there's always a line there and there's always going to be conflict, and I think a lot of times if you haven't been on both sides of the fence, and I have, you don't appreciate what's happening on one side or you may not fully understand what's happening on the other side, and you may make comments that aren't totally founded or based in the knowledge of what's going on. I mean I know -- I don't know what goes on at level, and I know I have opinions of things that maybe they're not justified because I don't know the full story. But just the two sides of the fence that I've been on and seeing some of the things I've seen, I think a lot of the comments are, in part, justified, but a lot of them are made out frustration and --

SPECIAL AGENT NEFF: From the union.

Yes. And may not have the full picture or be totally grounded in fact. But I think if you talk to the union guys, if you talk to every union individual, Operations-wise, and you ask them where they think relative to safety today as to where we were six months ago or a year ago, I think

1 they're going to pretty much convey to you the same thing, maybe with one or two exceptions. 2 3 SPECIAL AGENT NEFF: You think they have 4 a general comfort level with that or at least the 5 concerns would be less so today than they would have been maybe a year ago? 6 7 I think so, and I think every one to a man feels that they can bring safety 8 issues up and I think they feel empowered to raise 9 10 those type of issues. I really do. I really do. SPECIAL AGENT NEFF: Without concern for 11 12 any type of adverse action? Absolutely. Absolutely. 13 Actually, what they'll do, especially with regard to 14 15 safety, is when notifications comes in I mean they'll 16 get screened by SROs and we have ability to decode 17 with safety coding that alerts 18 organizations down here at the island and they even have been trained on how to code those notifications. 19 And I mean that stuff all gets a lot of attention 20 these days. 21 22 SPECIAL AGENT NEFF: Is that something new, this coding? 23 I think within the past 24 six to eight months I want to say, yes. I mean it may 25

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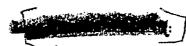
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1	have been there in the past but not widely as known.
2	SPECIAL AGENT NEFF: Emphasized?
3	Emphasized, yes. And
4	people may not have been aware of the fact it was out
5	there before where now we've had training on it. We
6	all know how to do that. So that's just my general
7	impression.
8	SPECIAL AGENT NEFF: Okay.
9	I don't know. That's me.
10	SPECIAL AGENT NEFF: Do you want to add
11	anything else?
12	No, I don't think so.
13	SPECIAL AGENT NEFF: I'll wrap it up with
14	a few closing questions then. What about you, Scott?
15	SR. PROJECT ENGINEER BARBER: I'm good.
16	SPECIAL AGENT NEFF: Okay. Have I or any
17	other NRC representative offered you any promises of
18	reward or threatened you in any manner in exchange for
19	your information today?
20	No.
21	SPECIAL AGENT NEFF: Have you appeared
22	freely and voluntarily?
23	Yes.
24	SPECIAL AGENT NEFF: Okay. We've pretty
25	much covered and you have nothing else to add to the

record?



Nothing else.

SPECIAL AGENT NEFF: Okay. Then at this point we'll go off the record. I have to thank you for a significant amount of your time today. Thank you.



Good. You're welcome.

SPECIAL AGENT NEFF: Okay. We went off the record at approximately 3:31, 3:30 p.m. Right now it's about 3:35 and I just wanted to catch that oversight.

(Whereupon, at 3:25 p.m., the Interview of



was concluded.)

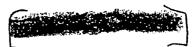
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## CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

Name of Proceeding: Interview of



Docket Number:

1-2003-051F

Location:

Salem, NJ

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 as recorded on tape(s) provided by the NRC.

Mia Tharp

Official Transcriber

Neal R. Gross & Co., Inc.