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April 13, 1995

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'95 APR 14 10:45

Before the Atomic Safety and Licensing Board

In the Matter of)
GEORGIA POWER COMPANY,) Docket Nos. 50-424-OLA-3
et al.) 50-425-OLA-3
(Vogtle Electric Generating) Re: License Amendment
Plant, Units 1 and 2) (Transfer to Southern
Nuclear)
ASLBP No. 93-671-01-OLA-3

CORRECTION TO GEORGIA POWER COMPANY'S LIST OF EXHIBITS
RELATED TO THE DIESEL GENERATOR REPORTING ISSUE

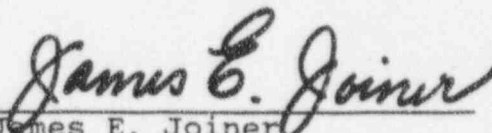
Georgia Power Company's List of Exhibits Related to the Diesel Generator Issue and the Supplemental Testimony of George Bockhold, Jr., on Diesel Generator Air Quality, served on the parties on April 3, 1995, inadvertently included as an exhibit the wrong version for the partial Tape 41 Transcript (GPC Exhibit 55; Bockhold Exhibit I). Georgia Power intended to use as its exhibit, and has enclosed, the same transcript that Georgia Power submitted to the parties on March 23, 1995, in response to the NRC Staff's February 22, 1995, stipulation request.^{1/}

The Tape 41 Transcript has been copied numerous times and each of the parties has made hand-marked corrections to the same transcript. As a result, the transcript has become very difficult to read. To remedy this potential difficulty for the

^{1/}See Georgia Power Company's letter to Mitzi A. Young, Esq., dated March 23, 1995.

Board, Georgia Power has retyped this transcript for the parties, incorporating the proposed changes. This retyped transcript is also enclosed and is labelled GPC Exhibit 55A, Bockhold Exhibit I-1.

Respectfully submitted,


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Dated: April 13, 1995

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BRANCH
424-OLB-3

Docket Nos. 50-424-OLA-3
50-425-OLA-3

Re: License Amendment
(Transfer to Southern
Nuclear)

ASLBP No. 93-671-01-OLA-3

Thomas L. Penland, Jr.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
GEORGIA POWER COMPANY,
et al.

(Vogtle Electric Generating Plant,
Units 1 and 2)

*	Docket Nos. 50-424-OLA-3
*	50-425-OLA-3
*	
*	Re: License Amendment
*	(Transfer to Southern Nuclear)
*	
*	ASLBP No. 93-671-01-OLA-3

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1 (inaudible)?

2 VOICE: Eight a.m.

3 VOICE: (Inaudible).

4 *GB* VOICE: Whatever yesterday's mode
5 1 projection is ^{the same} (inaudible).

6 VOICE: But (inaudible) Saturday
7 night at eight o'clock.

8 *Pandora* VOICE: We were showing three
9 o'clock Tuesday (inaudible) yesterday.

10 *GB* VOICE: Three o'clock Tuesday.

11 *we're not going to lose any time.*
~~(Inaudible)~~. *Mostly we're* ~~(inaudible)~~. *mode 3 will come quickly*
12 That's my projection.

13 VOICE: Mode 2 (inaudible).

14 VOICE: Okay. (Inaudible) mode 4.

15 *GB* VOICE: ^{Tonorrow} (Inaudible). *afternoon*

16 VOICE: Okay. (Inaudible) we
17 don't need to worry about (inaudible).

18 VOICE: (Inaudible) engineers
19 (inaudible).

20 VOICE: (Inaudible).

21 VOICE: I'm leaving, I just
22 (inaudible).

23 *GB* VOICE: ^{On my radio} (Inaudible).

24 *GB* VOICE: ^{let me} (Inaudible) read a

✓ 25 paragraph. ^["] *GC* ~~(Inaudible)~~ has reviewed air

of course 41

1 quality of the diesel generator focusing on
2 ~~the 1A diesel~~ ^{the 1A diesel} air system including
3 ~~its (inaudible)~~ dewpoint control and has
4 concluded that air quality is satisfactory. [11]

5 Initial reports of higher than
6 expected dewpoints later ^{attributed to faulty instrumentation} (inaudible).

7 That specific ~~test~~ ^{surface} was in reference
8 to the March 29, March 30, and March 31 work
9 order associated with the instruments that we
10 later determined was bad, and we got to [the]
11 (inaudible) ^{VC Summer instrument} ~~some of them~~ and we figured out
12 how to work the (inaudible) instrumentation. [okay.]

13 This was confirmed by an internal
14 inspection of one (inaudible) ^{air receiver} on April 6,
15 1990. ~~(inaudible)~~ ^{we} looked in there and [we]
16 light (inaudible) ^{film} of oil and [we] found some
17 minor corrosion on ^{some surfaces} (inaudible) ~~also~~. We told the
18 NRC that. [The] ~~we~~ periodically ^{re-} ~~placed~~ ^{ment} ~~in a~~ ^{of} control
19 air filters were done in March, 1990. From
20 all reports that I've heard on that is that
21 those air filters were always clean. Even in
22 the previous outage they were very clean and
23 practically brand new.

24 We showed no indication of corrosion
25 and air receiver and daily air receiver blow (inaudible)
(^{which} ~~inaudible~~) showed no indication of corrosion

1 and daily air receiver blow down with no
2 significant water discharge.

✓ 3 We believe, although [Swartzwelder] ^g
4 is checking, is ever since we started up
5 we've been doing daily air receiver blowdowns
6 as part of operations.

Mike Horton

7 Further, I guess, (inaudible) when
8 the air quality came up, spoke to the Cooper
9 people. And the (inaudible) ^{carper} reaction
10 (inaudible) ^{was get} if you do these daily blowdowns,
11 and you don't have a air receiver full of
✓ 12 water, because of the ^{these are} (inaudible) marine
13 engines and because you have a pressure
14 reduction going to the controls, you really
15 don't have to worry about air quality.

✓ 16 ^g [You] ^[would be] used the word that ^[was used]
✓ 17 ~~[You used some words that were get by you]~~ (inaudible) you know, ^{at that time was gro} air quality (inaudible).
18 That was the flavor that came to me, okay.

✓ 19 We've done I guess ^{and during the} some additional
20 research. We have (inaudible) '88 time frame-
✓ 21 -well, we had ^{[some] PM} (inaudible) program ^{problem on}
✓ 22 working out ^{PM} (inaudible) program for
23 (inaudible). ^{problem 5} [some]

24 The '88 time frame from like 5/10/88
25 to 5/2/89, somewhere in that time frame,

1 approximately a year ago, the year before
 2 that, we may have had one or more of the
 3 dryers out of service for several months,
 4 okay, and that's indicated here.

5 We probably were not doing good PM's
 6 on checking dryer quality at that particular
 7 ^{period of time} (inaudible), okay.

8 ^{would} ~~was~~ I guess my question to the group is
 9 ^{about} ~~was~~ that ~~a~~ (inaudible) the statement that we
 10 made in our letter at all?

11 Is the other facts, the fact that
 12 ^{hey we} (inaudible) blow down the air dryer, ^[S] the fact ^[that]
 13 ^{we looked} ~~that we don't~~ (inaudible) ^[the] ^[at an] air dryer, the
 14 fact that essentially a year or approximately
 15 a year before the ^{over how} (inaudible), you know, we
 16 ^{good complaint} did have (inaudible) ^{work that leave 16's statement it} ~~did not fully~~ (inaudible)
 17 ^{A whole and good} ~~statement of~~ (inaudible).

18 ^{Archery} VOICE: The question I need to ^{until you}
 19 answer first, ^{the down first we were talking for the} ~~(inaudible)~~ ~~(the (inaudible))~~ ^{was it}
 20 ^[you know] the right way? ^[You have] ^[You know, we have] (inaudible)
 21 ^[inaudible] ^{seventeen,} twelve, twenty-two, ^{These are good} ~~you have~~
 22 ^[YOU GOT A GOOD] ~~(inaudible)~~ numbers.
 23 ~~Remember, (inaudible)~~

24 ^{Any} VOICE: That's theoretically not
 25 possible.

1 GB VOICE: I mean, what we've got to
2 basically say is our PM program before, I
3 don't know --

4 *Am* VOICE: June, July, '89; right?

5 GB VOICE: Yeah, somewhere --

6 *know* VOICE: (Inaudible) '89.

7 GB VOICE: Yeah, somewhere in that
8 time frame our PM program was suspect. Okay,
9 the readings were suspect. You know, that
10 doesn't mean that you did have good air, but
11 it doesn't mean that you didn't have good air.
12 We don't know if we had good air or bad air,
13 okay.

14 But in the meantime we did pull the
15 filter, okay, and we had been doing the
16 blowdowns and all of that implies that the
17 air, although it may not *during this period of time* demonstrate
18 ~~(inaudible)~~ the best quality, was
19 satisfactory.

20 *Kodony* VOICE: (Inaudible) you can't say
21 that we have a bad air and *during the period* ~~(inaudible)~~ because
22 anytime you've got a minor corrosion, you can
23 see anytime (inaudible).

24 GB VOICE: You know, I guess I would
25 tend to believe that we had good air based

1 upon two things; one, pulling the air filter
 ✓2 and inspecting it, which was ~~(inaudible)~~ ^{essentially} new.
 ✓3 We didn't see any buildups of ~~(inaudible)~~ ^{air things}.

4 The second thing I guess I would
 ✓5 tend to believe, you know, ^[you get] two hundred and
 ✓6 fifty pounds ^[it sets there at] ~~(inaudible)~~ or thereabouts and
 7 kind of room temperature, okay, and your
 ✓8 dryer ^[tries to dry it and it goes through] ~~(inaudible)~~ an expansion process, even
 9 if you didn't have a dryer, it goes through an
 10 expansion process, the ^{control air [gets drier]} ~~(inaudible)~~ in my
 11 opinion. At least I think that's correct.

✓12 You know, ^[you go from] ~~(inaudible)~~ two hundred and
 13 fifty pounds or two hundred and ten pounds
 ✓14 ^[at the lowest to] ~~(inaudible)~~ sixty pounds ^{[It gets a lot drier. So the} ~~(inaudible)~~ dry air. controls
 15 So I would then conclude, if my ^{themselves} ~~(inaudible)~~ are gonna
 16 logic is correct, I would conclude that ^{see}.

✓17 ^[our statement here is more for] ~~(inaudible)~~ ^[on] my air quality is still a valid
 ✓18 ^{statement, right.} ~~(inaudible)~~.

✓19 VOICE: ~~(inaudible)~~ ^{Michael Felt}.

20 ^{Am} VOICE: ^{we responded in} Yes. You know,
 21 ~~(inaudible)~~ we agree ~~(inaudible)~~ in this
 22 generic letter and stated what our air
 23 quality was.

✓24 ^{We did} ~~(inaudible)~~ states ^{[that our air}
 ✓25 ^{the maximum demand acceptance criteria to the [air start]} ~~(inaudible)~~ quality ~~(inaudible)~~ Vogel ~~(inaudible)~~ system ^[l]

1 ~~It's~~ ^{has} been established that fifty degrees ^{at}
 2 ~~(inaudible)~~ ^{of the air heat system} at this compressor ^{see FSR table} ~~(inaudible)~~.

3 That's what we said our requirements are.

4 Dewpoint criteria was established
 5 based on a design capability ~~(inaudible)~~ ^{of the air heat system} and a
 6 minimum diesel generator ~~(inaudible)~~ ^{room design for structure}.

7 So basically we said that our
 8 criteria is fifty degrees ^{F at system pressure} ~~(inaudible)~~.

9 GB VOICE: Yeah, ^{That's what we said is the FSR} ~~(inaudible)~~.

10 GB VOICE: ^{We sometimes will not meet that and we haven't a} ~~(inaudible)~~ demonstrate it
 11 Or where we didn't have a good PT program, ^{to} ~~(inaudible)~~ periodically. My question really focuses on

12 ^{recent George Hain's} ~~(inaudible)~~ letter and how long -- you
 13 know, I believe from what I've heard from all
 14 the experts that Item 4 here is still valid.

15 I mean, we believe that we've had
 16 satisfactory quality air going to the control
 17 system.

18 ^{Robert} VOICE: Yes, I think that because
 19 the ^{known... the filter} ~~(inaudible)~~.

20 GB VOICE: Given the fact that you
 21 have an expansion process ^{that makes the air drier} ~~in the dryer~~.

22 ^{Ann} VOICE: Again, George, I say, you
 23 know, it depends on what you're going to call
 24 satisfactory.

25 If you're going to say satisfactory

HORTON: You can't prove that statement.
MOSBACH:

You've got to figure
that that statement is true
based on our ⁴⁷
observations and --

1 is what we said in response to the generic
2 letter, I'm not sure that we can show that
3 we've met that criteria.

4 The problem is that you can't tell
5 what any of these numbers are because the way
6 the PM's done, you just can't tell.

7 You know, there's a number down
8 here, but there's no calculation. ^{They} ~~you're~~
9 doing the measurements at atmospheric
10 pressure, yet they need to be corrected back
✓ 11 to a system pressure, you know, and we're
12 getting high numbers. [Inaudible]

✓ 13 ~~Horton: voice: That (inaudible) is true~~
✓ 14 ~~based on (inaudible) that (inaudible) is true~~
~~based on (inaudible) that (inaudible) is true~~

15 GB VOICE: We've made engineering
16 judgments, okay, on this particular statement.
17 I would go ahead and --

✓ 18 Am VOICE: You know, we're saying [is]
19 there's ^{no} internal corrosion that we're
20 observing, therefore air quality is met and
21 that may or may not be the ^{reliable} (inaudible).

✓ 22 ~~Kalmy VOICE: (inaudible) you can see~~
✓ 23 ~~the (inaudible) (the difference)~~

24 ~~Sloper VOICE: I guess I don't meet the specific~~
✓ 25 ~~judgment when we (pull) (blow) fit down three times a~~

1 day and operations says based on what we've
 2 seen ^{on the filter and everything else} (inaudible), no corrosion, we have to say
 3 ^{its acceptable} (inaudible) — but it doesn't in fact meet the number?

4 ~~Harvey~~ VOICE: I ^{think the} ~~problem~~ ^{concern is the lack of} ~~is the lack of~~ ^{documentation.}
 (inaudible).

5 ~~Harvey~~ VOICE: ^{The IIT transmes mode} ~~(inaudible)~~ A recent

6 requests, George, for all these work orders,
 7 okay. They've asked for all these --

8 GB VOICE: I think at ten o'clock
 9 I'll talk to ^{IIT form} ~~(inaudible)~~ about going back on
 10 our past work orders in our PM program in '88
 11 was not as good as our PM program has been in
 12 the past year, basically, in '89 ^[and] going to '90,
 13 and we'll provide that information. ^{its still} ~~our~~
 14 engineering judgment that we had satisfactory
 15 air quality. I think that's --

16 ~~Burns~~ ^{voice} VOICE: The expansion of air from
 17 receiver pressure to eighty pounds is going to
 18 result in about an eighty degree depression of
 19 dewpoint -- pardon me, thirty degree
 20 depression at dewpoint.

21 VOICE: (Inaudible).

22 VOICE: Yeah.

23 VOICE: Yeah.

24 ^[Masbaugh] ~~voice~~ VOICE: So the receiver --

25 ^{PHB} ~~voice~~ VOICE: The absolute worst case

1 would be water laying in the bottom of the
2 tank on a hot day, you'd have had, what, a
3 ninety degree dewpoint or so.

4 *Am* VOICE: Okay. The other thing
5 that happens with a system like that is
6 normally your receiver temperature is elevated
7 when your compressors are operating because of
8 the heat, but a ninety or a hundred would be a
9 good number.

✓10 *PHB* VOICE: But ^{*we store air*} ~~[inaudible]~~ ^[in those] for such a
11 long time.

✓12 ^[Mosbaugh] ~~voice~~ ^{*effect*} That would only be a short
13 period ~~[of]~~ ^[inaudible].

✓14 ^[Brinkle] ~~voice~~ ^{*force*} Yeah.

15 *Am* VOICE: I think that's probably a
✓16 good ^{*starting*} ~~[inaudible]~~ point.

17 *PHB* VOICE: You get about thirty
18 degree depression of a dewpoint ^{*for that expansion*} ~~[inaudible]~~ so
✓19 whatever we ^{*theorize*} ~~[inaudible]~~ the maximum ^[in the] receiver
20 was, we're sure we had thirty degrees lower
21 ^{*at the constant*} ~~than [inaudible]~~.

✓22 *GB* VOICE: ^{*If you [say] [said you had]*} ~~[inaudible]~~ ninety degrees
23 in that room and that room would never,
24 actually never rapidly fall to sixty degrees.

25 *PHB* VOICE: The ISA standard was

[in the summer time]

1 twenty -- how many degrees below room
2 temperature?

✓3 ^{Stu} VOICE: Eighteen degrees.

4 ^{PAB} VOICE: Eighteen degrees. So we
5 always are going thirty, which is more than
6 eighteen.

✓7 ^{GB} VOICE: Okay. So we believed ^[then] ~~that~~
8 we had good air quality and a poor PM program
9 in '88 and we fixed that.

10 ^{PAB} VOICE: The PM program needs some
11 minor tuning up now.

✓12 ^{Kechery} VOICE: (Inaudible) ^[minor tuning] needs to be
13 done now.

✓14 ^[Bockhold] ~~VOICE~~ VOICE: Oh, yeah, I agree.
15 (Inaudible).

16 ^{GB} VOICE: Oh, yeah, we flapped
17 around with the fact that we got a, you know,
18 on the 29th or so we got a ^{crummy} ~~phony~~ reading and
✓19 nobody knew about it until ^[with Hunt] ~~(inaudible)~~ picked
20 it up.

21 ^{Am} VOICE: George, we had a bad
✓22 reading today. Sixty degrees ^[of] ~~(inaudible)~~ on
23 the two ^{A direct} ~~(inaudible)~~ ^{thermometers}

✓24 ^{GB} VOICE: ^{The 2A direct} ~~(inaudible)~~ I think we're
25 working on the problem; isn't that right?

✓1 *states* VOICE: *They ^{had} left the dryers off* 51
 ✓2 *following that* think ~~(inaudible)~~ *the dryers off.* I
 3 VOICE: (Inaudible).
 4 *Hoster* VOICE: *Have'n't* ~~I think~~ we got *any* good
 ✓5 readings ~~(and) (inaudible)~~.
 ✓6 GB VOICE: Not on 2A, 2B. *(Inaudible)*
 ✓7 *Kahony* VOICE: 2A *was high.* ~~(Inaudible)~~
 ✓8 GB VOICE: *They're trying to dump down the tanks*
 9 operations and we ~~believe~~ *should be dumping that tank down*
 ✓10 *Kahony* VOICE: *Gotty's going to do that today.* ~~(Inaudible)~~
 11 GB VOICE: Okay. When I heard about
 12 it, and I heard about it yesterday or so or
 13 the day before yesterday -- actually I heard
 14 about it just before the meeting *with the NAC* ~~(inaudible)~~.
 15 He mentioned there was a possibility
 16 and they finally took the reading and I got
 17 the information just before they finally took
 18 the reading *that it effective* ~~(inaudible)~~ and I think it was
 19 sixty degrees at that point.
 20 *I thought I told this on* ~~(inaudible)~~ *for somebody in*
 ✓21 operations to go ahead and ~~(inaudible)~~ *start the bleed, fuel or*
 22 *PHB* VOICE: For PM program *the tank tank*
 23 improvement, the PM currently says to use a
 24 pressure regulator *upstream of* ~~(inaudible)~~ *[the]* instrument and
 25 the instrument manual says that you should not

And I just dispositioned another one to have me write another procedure. So the PM has been out of our hands. As soon as I correct something they say redo it.

[(Inaudible)] that had been changed in every version of the PM a year ago. We put the correct numbers in there and the correct procedure and they changed it in the mean time. 52]

1 use a pressure regulator. It should be a
2 needle valve. That needs to be changed. [are]

✓ 3 ~~Steve~~ VOICE: ~~[(Inaudible)] another or go to the~~
4 ~~Steve~~ VOICE: ~~PM's and out of the hands of the~~
5 ~~Kaboor~~ VOICE: ~~[(Inaudible)]~~ Also the guys out of service. [they
still for the compressor us.]

6 CB VOICE: I'll write a note to [I can't
understand that.]
7 ~~[(Inaudible)]~~ ~~on this thing~~ [I don't understand why]

8 PHB VOICE: And the reading for
9 (inaudible) the reading at atmospheric
10 pressure, ~~[(Inaudible)]~~ ~~they ought to convert the acceptance~~ at atmospheric pressure
11 and then they wouldn't have to go ~~(convert)~~ (inaudible)
12 back to receiver pressure every time they did
13 it with, you know, chance for error and not
14 knowing how they do it.

15 Kachery VOICE: (Inaudible) make that
16 error.

✓ 17 [Kachery] VOICE: (Inaudible).

18 Kachery VOICE: They give the readings and
19 they get the temperature, you know. They
20 just (inaudible).

21 VOICE: Yeah.

22 Kachery VOICE: And they go back to try to
23 correct that one --

24 PHB VOICE: So we're going to end up
25 with an acceptance dewpoint of like minus

1 five degrees or something atmosphere.
 ✓2 [Stokes] ~~voice?~~ (Inaudible) *[are you saying take out the*
 ✓3 *charts and 2-]*
 ✓4 [Kochery] ~~voice?~~ That's right.
 ✓4 PHB VOICE: Well, the ~~the~~ procedure
 5 doesn't tell them how to correct it. It just
 6 says to correct it, so we don't know how
 7 they're doing it.
 ✓8 ~~[voice:]~~ [Yeah.]
 ✓9 *Stokes* VOICE: I just think the ~~position~~ *disposition* ~~of a DC~~
 ✓10 ~~[would be (inaudible)]~~ to have them rewrite the
 ✓11 ~~[the field test procedure for each one of those]~~
 ✓11 ~~(inaudible)~~ and make sure the (inaudible).
 12 VOICE: (Inaudible).
 ✓13 [PHB] ~~voice?~~ Document control.
 14 VOICE: (Inaudible).
 15 *Horton* VOICE: The one they had out the
 16 in field the other day was an unapproved copy.
 17 VOICE: (Inaudible).
 18 VOICE: (Inaudible) equipment
 19 (inaudible).
 20 *PAB* VOICE: The PM program.
 21 VOICE: Right.
 22 VOICE: (Inaudible) or region
 23 number, what's that number?
 24 VOICE: (Inaudible) just got a
 25 message (inaudible).

✓ 1 *Al* VOICE: The conclusions *[f]* that I can
2 draw, George, is that I think that we know
3 we've had compressors that -- dryers out of
4 service for a long period of time.

5 Kenny says that we have continued at
6 times to run the compressors even though the
7 dryers are out of service, and I believe that
8 when you do that, you have a condition like
9 you have right now on 2A and you'll end up
10 with, you know, sixty degree or so dewpoint,
11 okay.

12 And we have operated that way, okay,
13 and I think there's an operating history like
14 that, and I think having operated that way in
15 the past, you know, I don't think we can say
16 we've always met the statements on air quality
17 that we have in the PSAR.

18 On the other hand what we're saying
19 is that we have inspected the receiver and
20 we've inspected the filters and from the
21 extent of that inspection, we have not
22 detected a corrosion problem, and I think
23 that's about as much as we can conclude.

24 *GB* VOICE: I think we can add that,
25 you know, the thirty degree dewpoint drop

because of

the way the system's

still gives us

55

1 (inaudible), designed to filter satisfactory
2 air (inaudible) ^{and by our engineering judgment} associated with that.

3 ~~Am~~ VOICE: I think you have an actual
4 case right here right now on 2A.

✓5 GB VOICE: That's sixty degrees [inaudible] --
✓6 [PHB] VOICE: -- Dropped to thirty [inaudible].

7 PHB VOICE: You would meet the
✓8 requirements of sixty degrees [certainly].

✓9 [GB] VOICE: [inaudible] -- On 2A.]

10 PHB VOICE: If you postulate the dryer
11 being out for a long period of time in the
12 summer and the room getting to ninety -- I
13 guess design maximum the room is like ninety-
14 eight.

✓15 GB VOICE: You've got to look over [a]
✓16 ^{course} reports of time [too.]

✓17 [PHB] VOICE: Yeah.

18 GB VOICE: I mean, when you do the
19 bubble test, you're bubbling moist air down
20 the line. You know, that's for a short period
21 of time. You've got saturated air going
22 through the control. That's what the
23 manufacturer is using, but short periods of
24 time is not a problem.

✓25 [PHB] VOICE: Yeah.

✓1 [CB] voice: The problem is that you
 ✓2 get water down the line ^[and it sets there and] (inaudible) corrodes.
 ✓3 ~~PAB~~ VOICE: ~~[corrosion]~~ And corrodes and (inaudible)
 ✓4 [CB] VOICE: That's ^[a big] the problem.
 5 GB VOICE: Okay.
 6 GB VOICE: I'll talk to the
 ✓7 ^{Residents} (inaudible) about this.
 ✓8 [CB] voice: I appreciate it, folks.
 9 I'll pass (inaudible).
 10 VOICE: (Inaudible).
 11 GB VOICE: I'll pass this on to
 12 Harvey and make sure (inaudible) PM.

 13 VOICE: Yeah. (Inaudible).
 14 VOICE: Do you have any comments
 15 to incorporate in it?
 16 VOICE: I need somebody to walk me
 17 through that procedure.
 18 VOICE: Bill.
 19 VOICE: (Inaudible).
 20 VOICE: You want to hear the whole
 21 thing?
 22 VOICE: Yeah, I want to hear the
 23 whole thing.
 24 VOICE: You got a few minutes?
 25 VOICE: I got a few minutes.

TAPE 41 (April 11, 1990)

Tr. 40-56 (Line 12)

(inaudible)?

VOICE: Eight a.m.

VOICE: (Inaudible)

BOCKHOLD: Whatever yesterday's mode 1
projection is the same.

VOICE: But (inaudible) Saturday night at
eight o'clock.

PARTON: We were showing three o'clock Tuesday
(inaudible) yesterday.

BOCKHOLD: Three o'clock Tuesday. We're not
going to lose any time. Mode 3 will come quickly. That's my
projection.

VOICE: Mode 2 (inaudible).

VOICE: Okay. (Inaudible) mode 4.

BOCKHOLD: Tomorrow afternoon.

VOICE: Okay. (Inaudible) we don't need to
worry about (inaudible).

VOICE: (Inaudible) engineers (inaudible).

VOICE: (Inaudible).

VOICE: I'm leaving, I just (inaudible).

BOCKHOLD: On my nickel.

BOCKHOLD: Let me read a paragraph. "GPC has
reviewed air quality of the diesel generator of course
focusing on the 1A diesel air system including dewpoint
control and has concluded that air quality is satisfactory."

1 "Initial reports of higher than expected dewpoints later
2 attributed to faulty instrumentation.

3 That specific sentence was in reference to the March 29,
4 March 30, and March 31 work order associated with the
5 instruments that we later determined was bad, and we got the
6 V.C. Summer instrument and we figured out how to work the EG&G
7 instrumentation. Okay.

8 This was confirmed by an internal inspection of one air
9 receiver on April 6, 1990. We looked in there and we found a
10 light film of oil and found some minor corrosion on some weld
11 surfaces. We told the NRC that. The periodic replacement of
12 control air filters were done in March, 1990. From all
13 reports that I've heard on that is that those air filters were
14 always clean. Even in the previous outage they were very
15 clean and practically brand new.

16 We showed no indication of corrosion and air receiver and
17 daily air receiver blow (inaudible) which showed no indication
18 of corrosion and daily air receiver blow down with no
19 significant water discharge.

20 We believe, although Swartzwelder is checking, is ever
21 since we started up we've been doing daily air receiver
22 blowdowns as part of operations.

23 Further, I guess, Mike Horton, when the air quality came
24 up, spoke to the Cooper people. And the Cooper reaction was,
25 gee, if you do these daily blowdowns, and you don't have a air
26 receiver full of water, because of the, these are marine

1 engines and because you have a pressure reduction going to the
2 controls, you really don't have to worry about air quality.

3 You used the word that would be, you know, why you guys
4 bothering us, air quality at Vogtle was great. That was the
5 flavor that came to me, okay.

6 We've done some I guess additional research. We have
7 during the '88 time frame -- well, we had some PM program
8 problems on working out some PM program problems.

9 The '88 time frame from like 5/10/88 to 5/2/89, somewhere
10 in that time frame, approximately a year ago, the year before
11 that, we may have had one or more of the dryers out of service
12 for several months, okay, and that's indicated here.

13 We probably were not doing good PM's on checking dryer
14 quality at that particular period of time, okay.

15 I guess my question to the group is would that affect the
16 statement that we made in our letter at all?

17 Is the other facts, the fact that hey, we blow down the
18 air dryers, the fact that we looked at an air dryer, the fact
19 that essentially a year or approximately a year before the
20 overhaul, you know, we did have good dewpoints would that
21 leave this statement, item four, whole and good?

22 KOCHERY: The question I need to answer first,
23 the dewpoint we were taking until you for the period, was it
24 used the right way? You know, we have (inaudible) seventeen,
25 twelve, twenty-two, these are good, you got a good number.

1 MOSBAUGH: That's theoretically not possible.

2 BOCKHOLD: I mean, what we've got to basically

3 say is our PM program before, I don't know --

4 MOSBAUGH: June, July, '89; right?

5 BOCKHOLD: Yeah, somewhere --

6 KOCHERY: (Inaudible) '89.

7 BOCKHOLD: Yeah, somewhere in that time frame

8 our PM program was suspect. Okay, the readings were suspect.

9 You know, that doesn't mean that you didn't have good air. We

10 don't know if we had good air or bad air, okay.

11 But in the meantime we did pull the filter, okay, and we

12 had been doing the blowdowns and all of that implies that the

13 air, although it may not during this period of time

14 demonstrate the best quality, was satisfactory.

15 KOCHERY: (Inaudible) you can't say that we

16 have a bad air and during the period because anytime you've

17 got a minor corrosion, you can see anytime (inaudible).

18 BOCKHOLD: You know, I guess I would tend to

19 believe that we had good air based upon two things; one,

20 pulling the air filter and inspecting it, which was

21 essentially new. We didn't see any buildups of air things.

22 The second thing I guess I would tend to believe, you

23 know, you get two hundred and fifty pound air or thereabouts

24 and it sets there at kind of room temperature, okay, and your

25 dryer tries to dry it and it goes through and expansion

26 process, even if you didn't have a dryer, it goes through an

1 expansion process, the control air gets drier in my opinion.
2 At least I think that's correct.

3 You know, you go from two hundred and fifty pounds or two
4 hundred and ten pounds at the lowest to sixty pounds. It gets
5 a lot drier. So the controls themselves are gonna see dry
6 air.

7 So I would then conclude, if my logic is correct, I would
8 conclude that our statement here we made on air quality is
9 still a valid statement, right.

10 VOICE: (Inaudible).

11 MOSBAUGH: Yes. You know, we responded in this
12 generic letter and stated what our air quality was.

13 We did state that our air quality, the maximum dewpoint
14 acceptance criteria for the Vogel air start system has been
15 established at fifty degrees F at system pressure. See FSAR
16 table. That's what we said our requirements are.

17 Dewpoint criteria was established based on a design
18 capability of the air start system and a minimum diesel
19 generator room design temperature.

20 So basically we said that our criteria is fifty degrees
21 F at system pressure.

22 BOCKHOLD: Yeah, that's what we said in the FSAR
23 (inaudible).

24 BOCKHOLD: We sometimes will not meet that and
25 we haven't met that in the past or where we didn't have a good
26 PM program to demonstrate it periodically. My question really

1 focuses on this recent George Hairston letter and how long --
2 you know, I believe from what I've heard from all the experts
3 that Item 4 here is still valid.

4 I mean, we believe that we've had satisfactory quality
5 air going to the control system.

6 KOCHERY: Yes, I think that because the dryer
7 . . . the filter (inaudible).

8 BOCKHOLD: Given the fact that you have an
9 expansion process that makes the air drier.

10 MOSBAUGH: Again, George, I say, you know, it
11 depends on what you're going to call satisfactory.

12 If you're going to say satisfactory is what we said in
13 response to the generic letter, I'm not sure that we can show
14 that we've met that criteria.

15 The problem is that you can't tell what any of those
16 numbers are because the way the PM's done, you just can't
17 tell.

18 You know, there's a number down here, but there's no
19 calculation. They're doing the measurements at atmospheric
20 pressure, yet they need to be corrected back to a system
21 pressure, you know, --

22 HORTON: You can't prove that statement.

23 MOSBAUGH: -- and we're getting high numbers.

24 HORTON: (Inaudible) documented evidence to
25 prove that statement. There's nothing to back that. You've

1 got to figure that that statement is true based on our
2 observations and --

3 BOCKHOLD: We've made engineering judgments,
4 okay, on this particular statement. I would go ahead and --

5 MOSBAUGH: You know, we're saying there's no
6 internal corrosion that we're observing, therefore air quality
7 is met and that may or may not be relatable.

8 KOCHERY: The air receiver was good you can see
9 the wedge filter you can see the difference.

10 STOKES: I guess it doesn't meet the specific
11 numbers criteria but based on our judgment when we blow it
12 down three times a day and operations says based on what we've
13 seen on the filter and everything else no corrosion, we have
14 to say it's acceptable -- but it doesn't in fact meet the
15 numbers.

16 HORTON: I think Al's concern is the lack of
17 documentation.

18 MOSBAUGH: The IIT team has made recent
19 requests, George, for all these work orders, okay. They've
20 asked for all these --

21 BOCKHOLD: I think at ten o'clock I'll talk to
22 IIT team about going back on our past work orders in our PM
23 program in '88 was not as good as our PM program has been in
24 the past year, basically, in '89 and going to '90, and we'll
25 provide that information. It's still our engineering judgment
26 that we had satisfactory air quality. I think that's --

1 BURWINKLE: The expansion of air from receiver
2 pressure to eighty pounds is going to result in about an
3 eighty degree depression of dewpoint -- pardon me, thirty
4 degree depression at dewpoint.

5 VOICE: (Inaudible).

6 VOICE: Yeah.

7 VOICE: Yeah.

8 MOSBAUGH: So the receiver --

9 BURWINKLE: The absolute worst case would be
10 water laying in the bottom of the tank on a hot day, you'd
11 have had, what, a ninety degree dewpoint or so.

12 MOSBAUGH: Okay. The other thing that happens
13 with a system like that is normally your receiver temperature
14 is elevated when your compressors are operating because of the
15 heat, but a ninety or a hundred would be a good number.

16 BURWINKLE: But we store air in those for such a
17 long time.

18 MOSBAUGH: That would only be a short period
19 effect.

20 BURWINKLE: Yeah.

21 MOSBAUGH: I think that's probably a good
22 starting point.

23 BURWINKLE: You get about thirty degree
24 depression of a dewpoint for that expansion so whatever we
25 theorize the maximum in the receiver was, we're sure we had
26 thirty degrees lower at the controls.

1 BOCKHOLD: If you said you had ninety degrees in
2 the summer time in that room and that room would never,
3 actually never rapidly fall to sixty degrees.

4 BURWINKLE: The ISA standard was twenty -- how
5 many degrees below room temperature?

6 STOKES: Eighteen degrees.

7 BURWINKLE: Eighteen degrees. So we always are
8 going thirty, which is more than eighteen.

9 BOCKHOLD: Okay. So we believed then we had
10 good air quality and a poor PM program in '88 and we fixed
11 that.

12 BURWINKLE: The PM program needs some minor
13 tuning up now.

14 KOCHERY: (Inaudible) minor tuning needs to be
15 done now.

16 BOCKHOLD: Oh, yeah, I agree.

17 VOICE: (Inaudible).

18 BOCKHOLD: Oh, yeah, we flapped around with the
19 fact that we got a, you know, on the 29th or so we got a
20 crummy reading and nobody knew about it until Milt Hunt picked
21 it up.

22 MOSBAUGH: George, we had a bad reading today.
23 Sixty degrees on the 2A diesel.

24 BOCKHOLD: The 2A diesel I think we're working
25 on the problem; isn't that right?

1 STOKES: They had left the dryers off, I think
2 following the PM, both dryers off.

3 VOICE: (Inaudible).

4 HORTON: Haven't we got any good readings.

5 BOCKHOLD: Not on 2A, 2B (inaudible).

6 KOCHERY: 2A was high. They're trying to drain
7 down the tanks.

8 BOCKHOLD: I can doublecheck with operations and
9 we should be bleeding that tank down.

10 KOCHERY: Cotty's going to do that today.

11 BOCKHOLD: Okay. When I heard about it, and I
12 heard about it yesterday or so or the day before yesterday --
13 actually, I heard about it just before the meeting with the
14 NRC.

15 He mentioned there was a possibility and they finally
16 took the reading and I got the information just before they
17 finally took the reading that if effective and I think it was
18 sixty degrees at that point.

19 I thought I told Skip or somebody in operations to go
20 ahead and start the bleed, feed and bleed on the tank too.

21 BURWINKLE: For PM program improvement, the PM
22 currently says to use a pressure regulator upstream of the
23 instrument and the instrument manual says that you should not
24 use a pressure regulator. It should be a needle valve. That
25 needs to be changed.

1 STOKES: (Inaudible) that had been changed in
2 every version of the PM a year ago. We put the correct
3 numbers in there and the correct procedure and they changed it
4 in the meantime. And I just dispositioned another DC to have
5 me write another procedure. So the PM has been out of our
6 hands. As soon as I correct something they say redo it.
7 STOKES: (Inaudible).
8 KOCHERY: Also the dryers are out of service.
9 They still run the compressors. I can't understand that.
10 BOCKHOLD: I'll write a note to Skip Kitchens
11 (inaudible). I don't understand why.
12 BURWINKLE: And the reading for (inaudible) the
13 reading at atmospheric pressure, they ought to convert the
14 acceptance criteria at atmospheric pressure and then they
15 wouldn't have to go correct back to receiver pressure every
16 time they did it with, you know, chance for error and not
17 knowing how they do it.
18 KOCHERY: (Inaudible) make that error.
19 KOCHERY: (Inaudible).
20 KOCHERY: They give the readings and they get
21 the temperature, you know. They just (inaudible).
22 VOICE: Yeah.
23 KOCHERY: And they go back to try to correct
24 that one --

1 BURWINKLE: So we're going to end up with an
2 acceptance dewpoint of like minus five degrees or something
3 atmosphere.
4 STOKES: (Inaudible) are you saying take out
5 the charts and --
6 KOCHERY: That's right.
7 BURWINKLE: Well, their procedure doesn't tell
8 them how to correct it. It just says to correct it, so we
9 don't know how they're doing it.
10 STOKES: Yeah. I just dispositioned a DC to
11 have them rewrite the field test procedure for each one of
12 those and make sure the (inaudible).
13 VOICE: (Inaudible).
14 BURWINKLE: Document control.
15 VOICE: (Inaudible).
16 HORTON: The one they had out the in field the
17 other day was an unapproved copy.
18 VOICE: (Inaudible).
19 VOICE: (Inaudible) equipment (inaudible).
20 BURWINKLE: The PM program.
21 VOICE: Right.
22 VOICE: (Inaudible) or region number, what's
23 that number?
24 VOICE: (Inaudible) just got a message
25 (inaudible).

1 MOSBAUGH: The conclusion that I can draw,
2 George, is that I think that we know we've had compressors
3 that -- dryers out of service for a long period of time.

4 Kenny says that we have continued at times to run the
5 compressors even though the dryers are out of service, and I
6 believe that when you do that, you have a condition like you
7 have right now on 2A and you'll end up with, you know, sixty
8 degree or so dewpoint, okay.

9 And we have operated that way, okay, and I think there's
10 an operating history like that, and I think having operated
11 that way in the past, you know, I don't think we can say we've
12 always met the statements on air quality that we have in the
13 FSAR.

14 On the other hand what we're saying is that we have
15 inspected the receiver and we've inspected the filters and
16 from the extent of that inspection, we have not detected a
17 corrosion problem, and I think that's about as much as we can
18 conclude.

19 BOCKHOLD: I think we can add that, you know,
20 the thirty degree dewpoint drop because of the way the
21 system's designed still gives us satisfactory air and its our
22 engineering judgment associated with that.

23 MOSBAUGH: I think you have an actual case right
24 here now on 2A.

25 BOCKHOLD: That's sixty degrees (inaudible) --

26 BURWINKLE: -- dropped to thirty (inaudible).

1 BURWINKLE: You would meet the requirements of
2 sixty degrees certainly.

3 BOCKHOLD: -- on 2A.

4 BURWINKLE: If you postulate the dryer being out
5 for a long period of time in the summer and the room getting
6 to ninety -- I guess design maximum the room is like ninety-
7 eight.

8 BOCKHOLD: You've got to look over a course of
9 time, too.

10 BURWINKLE: Yeah.

11 BOCKHOLD: I mean, when you do the bubble test,
12 you're bubbling moist air down the line. You know, that's for
13 a short period of time. You've got saturated air going
14 through the control. That's what the manufacturer is using,
15 but short periods of time is not a problem.

16 BURWINKLE: Yeah.

17 BOCKHOLD: The problem is that you get water
18 down the line and it sets there and corrodes.

19 BURWINKLE: And corrodes and (inaudible).

20 BOCKHOLD: That's a big problem.

21 BOCKHOLD: Okay.

22 BOCKHOLD: I'll talk to the residents about
23 this.

24 BOCKHOLD: I appreciate it, folks. I'll pass
25 (inaudible).

26 VOICE: (Inaudible).

1 BOCKHOLD: I'll pass this on to Harvey and make
2 sure (inaudible) PM.