



Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

BRIEFING ON NFS-ERWIN

(Closed to Public Attendance)

Wednesday, September 19, 1979

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BRIEFING ON NFS-ERWIN
(Closed to Public Attendance)

Chairman's Conference Room
1717 H Street, N.W.
Washington, D. C.

Wednesday, September 19, 1979

The Commission met, pursuant to notice, at 2:40 p.m.,
Victor Gilinsky, Acting Chairman of the Commission, presiding.

COMMISSIONERS PRESENT:
Commissioner Gilinsky
Commissioner Bradford
Commissioner Ahearne

ALSO PRESENT:
W. Dircks
J. Partlow
G. McCorkle
L. Gossick
V. Stello
E. May
L. McKeown
G. Cunningham
J. Fouchard
J. Crooks
B. Snyder
A. Kenneke
M. Malsch
J. Cummings
S. Chilk
J. Lawrence
G. Eysymontt
H. Fontecilla
W. Clements
H. Thompson
J. Funches
J. Gibert
R. McOsker
J. Brown (Reporter)

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PROCEEDINGS

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COMMISSIONER GILINSKY: Let's start.

COMMISSIONER AHEARNE: Don't we have to vote to have the meeting?

COMMISSIONER GILINSKY: Didn't we vote all of those things yesterday?

COMMISSIONER AHEARNE: To close the meeting, yes.

COMMISSIONER GILINSKY: There is no harm in voting again.

Let's vote to have a short-notice meeting and a closed meeting, on the subject of the MUF at Erwin Tennessee.

COMMISSIONER BRADFORD: Aye.

COMMISSIONER AHEARNE: Aye.

COMMISSIONER GILINSKY: Okay.

MR. DIRCKS: What I'll do is briefly tell you ^h were ~~we~~ ^{Material} are now. Jim Partlow, on my left here, is my Chief of ^{Licensing} Computer Control and Accounting Branch and he will get more into the details on what we know about the situation.

George McCorkle, sitting back over there by the door, is Chief of the Physical Security ^{Licensing} Branch, and he will bring you up to date on anything we need to discuss on the physical security side, through the reports we are getting back from Bob Burnett.

Bob Burnett is down there now, and I think we have about 11 people from NRC down there now and it may go up.

1 Six people from the Region, the Resident Inspector
2 and four people from headquarters.

3 Burnett -- I talked to Burnett twice today and there
4 is very little to report. What they are doing is beginning
5 the paperwork review to see -- to identify any major gaps
6 either in the procedures down there in the physical security
7 system. They are ending up the processing analysis and are
8 ready to go to the inventory procedure, which involves flushing
9 out the systems and doing the physical accounting.

10 COMMISSIONER AHEARNE: When will the processes be ---

11 MR. DIRCKS: I think the report I had, they will
12 actually start the physical inventory process on the 27th which
13 is next Thursday. That should last for about 30 days.

14 COMMISSIONER AHEARNE: So the process line will take
15 a week to finish?

16 MR. DIRCKS: It takes time, as somebody said, to coast
17 to a halt and to make sure you don't have any materials that
18 are half finished so you can get a count on it.

19 I have talked to the FBI. Their view now is there is
20 nothing yet to get them into the case and they prefer to stay
21 out of it. They want to be kept informed, and we have agreed
22 to do that. Not only through our office here, but through
23 the people on the scene. They will talk to the Johnson City
24 office and we will be talking to Satkowski and we will keep
25 the lines open.

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1 There have been no principal theories advanced to go
2 off and look for the [] in one big chunk sitting
3 anywhere. So we are just going to have to plow through the
4 whole system to look for it.

5 COMMISSIONER GILINSKY: Are our staff actually sitting
6 with the books and going through them?

7 MR. DIRCKS: They are sitting at the shoulders of the
8 people going through the books, yes, in fact they are at this
9 point.

10 COMMISSIONER GILINSKY: But it is actually the
11 facility's staff that are redoing their own material accounting,
12 and we are looking over their shoulders?

13 MR. DIRCKS: Is that right, Jim?

14 MR. PARTLOW: Yes.

15 We are reviewing the paperwork from the last material
16 balance which has resulted in this problem. We are reviewing
17 what they have reviewed. We are looking at it from our own
18 point of view.

19 Now, when we move into this next accounting period,
20 the re-inventory, we are not going to take the re-inventory for
21 them. We are going to watch them and the I&E inspection force
22 is going to be there with some equipment and people to watch
23 them take the inventory, do selective overchecks and verify
24 their inventory.

25 COMMISSIONER GILINSKY: Is that what all of these 11

1 persons are doing?

2 MR. DIRCKS: Well, the 11 are ---

3 MR. PARTLOW: I can go over some of the tasks.

4 MR. DIRCKS: Yes, why don't you go over that.

5 COMMISSIONER GILINSKY: Not necessary all of them, but
6 just to give us an idea.

7 MR. DIRCKS: Are you going to get into that?

8 MR. PARTLOW: Yes.

9 COMMISSIONER GILINSKY: Well, if you are going to do
10 that, then we will wait.

11 MR. DIRCKS: I just want to say that we've asked the
12 NEST crew to at least start something going. They will have
13 a plane doing some surveys there by this evening. It is more
14 of wanting to get something moving than just looking at the
15 paper, just on the off-chance that something might have gotten
16 out of the plant.

17 COMMISSIONER GILINSKY: I wonder if we could just get
18 some information on what the planes are capable of picking up.
19 I don't have any feeling for that. Not at this point, but could
20 you supply that?

21 MR. DIRCKS: Yes.

22 Jim, why don't you get into your details -- Oh, I
23 might say that there is a lot of press interest in this thing, as
24 you have seen already, and Joe sat with me while the CBS News
25 came by to interview me. ABC and NBC have had crews down at

1 Erwin, Tennessee interviewing people down there, and they have
2 asked me to appear on the Today Show tomorrow morning.

3 COMMISSIONER AHEARNE: By yourself or with Tom?

4 MR. DIRCKS: By myself. Is that right, Joe?

5 MR. FOUCHARD: Yes, to my knowledge it is.

6 COMMISSIONER GILINSKY: Tom who?

7 COMMISSIONER AHEARNE: Cochran.

8 MR. DIRCKS: He may show up, I don't know.

9 I think that's about where we stand. Jim, why don't
10 you start.

11 MR. PARTLOW: I was going to use these handouts as
12 a way of talking you through where we are. I know you want to
13 get to what we are doing and what we expect to get out of it,
14 but I wanted to get in to some background first.

15 (Slide)

16 This first chart covers roughly the last three years
17 of individual inventory periods. The final arrow is just to show
18 the [] differences, [

19
20] which is basically that dotted line
21 on the chart.

22 COMMISSIONER GILINSKY: Do we understand these swings
23 back and forth?

24 MR. PARTLOW: Commissioner, we ended up never under-
25 standing the swings. They went away, our staff developed an

1 empirical regression analysis, which was able to predict them,
2 using how much material was on hand in the plant, with some
3 constants attached to it, and it has done an excellent job of
4 predicting an inventory difference, based only on how the plant
5 operates.

6 We have investigated these material -- this regression
7 analysis ~~as pointed to~~, and we can't, so far, find anything wrong
8 with their measurement of these materials. It is my feeling that
9 that empirical thing is -- it isn't the correct answer, it is
10 telling us something, but we don't know what it is telling us,
11 though.

12 COMMISSIONER GILINSKY: Is there any suggestion that
13 these things are manipulated?

14 MR. PARTLOW: There is no suggestion of that. That has
15 been our thought all along, because there is the possibility
16 to withdraw and return, withdraw and return. But the way the
17 system works with two-man inventory teams, a prelisting of what
18 must be found on an inventory, there has just been no indication
19 that that has been the case.

20 COMMISSIONER GILINSKY: What I had in mind was that
21 certain processes reflecting, might produce more new material ---

22 MR. PARTLOW: As a matter of hold up in a plant
23 oscillating?

24 COMMISSIONER GILINSKY: Yes, yes.

25 MR. PARTLOW: We have looked at that. The holdup is

1 measured at 1300 points each two months. Again, that is done.
 2 under two-man control and it has held within the bounds of
 3 uncertainty of trying to do something like that in a factory,
 4 it is held rock-solid at [] through
 5 this entire period.

6 We may be missing ^{Point #} 1.1301, but we are not aware of that.

7 COMMISSIONER GILINSKY: I mean, it is odd that you
 8 never get two going in the same direction.

9 MR. PARTLOW: You would think they would compensate, yes.

10 (Slide)

11 The next chart, I didn't get it labeled, but this is
 12 the cumulative inventory difference over the same period ^{since} 1 '76.
 13 So when you sit back and look at this, it is not clear that the
 14 swings were much more than an aberration on a steady straight
 15 line which averages about -- excuse me, this is up until this
 16 latest inventory difference, but it is not clear that there just
 17 isn't something on the order of [] every period, being
 18 unaccounted for.

19 COMMISSIONER BRADFORD: The plant has had swings
 20 as opposed to the [] before, this isn't the first time ---

21 MR. PARTLOW: Yes, and it swings from peak to peak.
 22 It has never had a case where the books were zero^{ed} and then an
 23 inventory difference of [] By "never" I mean in recent times.

24 (Slide)

25 Now, this next chart is meant to say just that this is

1 not the biggest inventory difference that has ever occurred at
2 NFS, there were big ones back in the late '60s and early '70s.
3 This was during a time in which an inventory was only -- our
4 rules were not all that structured, and the inventory was taken
5 only once per year. So this is a once-per-year number, for '69,
6 '70, '71, '72, and '73. And it is only starting in 1974 that
7 we have started to conduct the bi-monthly material balance.

8 These are fiscal year, by the way, and so this 1979,
9 we are just ending up the fiscal year and if this [] holds true,
10 it will bring the number to [] for the previous 12 months.

11 COMMISSIONER AHEARNE: []

12 MR. PARTLOW: Yes, it includes the []

13 COMMISSIONER GILINSKY: I'm confused. []

14]
15 MR. PARTLOW: []

16]
17 COMMISSIONER GILINSKY: Why don't we have losses
18 indicated by minus? Is that a dumb question?

19 MR. PARTLOW: No, it is just a matter of convention.

20 COMMISSIONER GILINSKY: I know, you can do it either
21 way.

22 COMMISSIONER AHEARNE: But on the first page, loss
23 is in a negative direction on that chart.

24 MR. PARTLOW: I'm sorry, the loss is below the line.
25 I guess that is not consistent.

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1 COMMISSIONER GILINSKY: I guess you are not going to
2 release these numbers -- well, the older numbers, I know, do
3 get released when they are six months old.

4 MR. PARTLOW: Provided there is no investigation, and
5 that means currently the numbers have been released through
6 this past January 1st.

7 COMMISSIONER GILINSKY: Well, it may seem like simple
8 point, but I just didn't want to confuse anybody, but go ahead.

9 MR. STELLO: Are you sure that is a cumulative total
10 plant or is that just ^Pplant ^I~~one~~?

11 MR. PARTLOW: That is just ^Pplant ^I~~one~~. That is the main
12 Navy ---

13 MR. STELLO: Do we know what it looks like for the total
14 or sort of? Does it look the same or?

15 MR. PARTLOW: I haven't plotted that one.

16 COMMISSIONER AHEARNE: Then is it correct in the 1977,
17 that plant one lost 24 kg, but of the whole facility, including
18 plant one, gained 5 and a half kgs?

19 MR. PARTLOW: Yes. Now the reason for that is that
20 during 1976 and '77 we decided that we had had enough of the
21 business of putting away scrap at its uncertain value and not
22 recovering it and saying when a MUF came up, well, it must be
23 in the scrap. So we had special conditions on NFS to work off
24 a whole warehouse full of scrap, which had accumulated for
25 years. So that was done during '76 and up until mid-1977. So that

1 is basically the reason why there is difference between total
2 facility numbers and plant one numbers.

3 COMMISSIONER AHEARNE: So in no way then, should it
4 be really a comparison, because the processes that you are
5 measuring are entirely different. The whole facility, you say,
6 you may have been recovering some of the losses back there and
7 they were '69, '70, '71 ---

8 MR. PARTLOW: Yes, sir. Covering '68, '69, '70 scrap
9 materials, that right.

10 COMMISSIONER GILINSKY: Say that again? This may
11 have contributed to the []

12 MR. PARTLOW: No, that has nothing to do with the
13 []

14 It throws fog into how you want to talk about
15 cumulative MUFs over what period of time.

16 COMMISSIONER GILINSKY: Could you say something about
17 ^Pplant ^I~~one~~ versus this whole total plant.

18 MR. PARTLOW: Yes. Plant ^I~~one~~ is the main fabrication
19 plant and it is the only plant now. In 1975 and before there
20 were several plants. There was the main production plant, there
21 was the scrap recovery plant, there was a scrap warehouse plant,
22 and they were all combined into plant one. We just continue to
23 call them that, but that's all there is is one plant.

24 COMMISSIONER GILINSKY: Good enough.

25 COMMISSIONER BRADFORD: Can you talk about that in the

1 context of the first draft, and if you have a source of
2 material with previous year's MUFs coming in ---

3 MR. PARTLOW: We don't have that anymore.

4 COMMISSIONER BRADFORD: No, but you had it during
5 '77 and '78?

6 MR. PARTLOW: Yes, but that has been cleaned.
7 During '77, not '78. But that has been cleaned from this chart
8 here.

9 COMMISSIONER BRADFORD: Well, okay.

10 COMMISSIONER AHEARNE: This chart is just ^Pplant ^Ione?

11 MR. PARTLOW: Just ^Pplant ^Ione.

12 This is the part of the plant, under the requirements,
13 that any scrap generated during the operating period in plant
14 one get recovered during that period. This is the results of
15 that. There is a separate chart, during '76 and '77 that they
16 are cleaning out the warehouse and recovering the scrap as a
17 separate chart.

18 COMMISSIONER BRADFORD: But they don't know exactly
19 what they have in the warehouse?

20 MR. PARTLOW: It was put into the warehouse to the
21 best availability measurements during 1965, '67, and '69 and
22 so forth, and then the best measurements were made on it and it
23 was brought out and recovered during '75 and '76. The total
24 effect was the cleaning of the material.

25 (Slide)

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1 The next chart is meant to point out that there is
2 something -- there are some unusual situations in this material
3 balance ---

4 COMMISSIONER GILINSKY: Excuse me just one moment.
5 One more point there or question: When did they cut out that
6 counting or taking credit for uranium dumped in the river or
7 in the pond that wasn't, in fact, dumped?

8 MR. PARTLOW: That was late '75 or early '76 when the
9 first charts began. That is when the -- it's called the
10 Page Task Force went down there. The plant had been experiencing
11 gains up until that time and they discovered an overstating of
12 the materials.

13 COMMISSIONER GILINSKY: It seems to me that the numbers
14 before that don't mean anything.

15 MR. PARTLOW: (Nods in the affirmative.)

16 The next chart is some information about some
17 unusual aspects of this material balance. The righthand side
18 there is the material balance that we are talking about, June 18th
19 to August 14th.

20 During this period the plant was operated mainly by
21 salaried personnel. The union employees, who normally --
22 actually hands-on operate the plant went on strike. They went
23 on strike on April 16th in the middle of a previous material
24 balance. The salaried personnel took over and ran the plant
25 until the strike was reconciled in late July, and the workers came

1 back to work on August 5th, one week before the ending physical
2 inventory.

3 So during this period the plant was operated by salaried
4 personnel, then the union employees came back in, essentially
5 shutdown the plant, cleaned it out and they listed the physical
6 inventory and took the samples for the fiscal inventory.

7 The second, somewhat unusual thing, is that the inventory
8 result, the inventory differences to be recorded to us within
9 30 days at the close of the inventory period, which was August
10 14th, would normally call for the numbers to be reported to
11 us 30 days later on September 1³th. A week before that, they
12 petitioned up for an 11-day delay in recording their inventory
13 difference because they had accumulated some [] of
14 extra scrap during the operating period, and we require them ---

15 COMMISSIONER AHEARNE: Why would they have accumulated
16 extra scrap?

17 MR. PARTLOW: Well, the amount of scrap can vary, [

18
19]

20 COMMISSIONER AHEARNE: No, I'm not questioning why
21 they had scrap, but the extra scrap.

22 MR. PARTLOW: I understand so far that it might have
23 had something to do with the salaried personnel, but I'm not
24 ready -- I don't know that for sure yet. We are checking that
25 out.

1 MR. DIRCKS: We are checking that out. The plant was
2 operated by these salaried personnel, they may have had their
3 hands full keeping the lines functioning in a minimal way.
4 They may not have gone back and (inaudible) That's something
5 that is being ---

6 MR. PARTLOW: They asked for an extra 11 days because
7 we require that they recover that scrap during the 30-day
8 reconciliation period and get it into the inventory result.

9 We asked a lot of questions, you know, how many
10 samples are in the lab, how much stuff do you have to recover,
11 et cetera, and decided that four days represented sort of a
12 maximum reasonable time which we should allow them to get this
13 inventory result in, because we were interested in it, because
14 of just the general accounting situation at NFS. So we gave
15 them four days, and on that fourth day, at 5:00 o'clock, which
16 was now this past Monday, they reported the inventory difference
17 to us.

18 So they were -- I would say that it has been an unusual
19 period and that there were unusual working personnel, and there
20 was some pressure on the licensee to get the accounting records
21 finished and get it reported.

22 COMMISSIONER GILINSKY: Now, they seemed to have known
23 earlier that there was going to be a significant discrepancy.

24 MR. PARTLOW: I don't know. That is almost impossible
25 to find out when you talk to somebody, whether they think they

iterative
~~process~~

1 are going to have a problem or not. It is an ~~ending~~ process
2 of getting this material balance put together.

3 COMMISSIONER AHEARNE: Weren't they up here for a
4 meeting?

5 MR. DIRCKS: Yes, they have been up here twice. I
6 think the latest meeting, Jim, where we got them, it was not
7 on this subject but on their general performance where we
8 were threatening all sorts of things, and they were promising
9 to do such good things. The close of the meeting they said, well,
10 you about this inventory thing, you are not going to be happy
11 with it.

12 MR. SNYDER: Does the Resident Inspector have an
13 inkling of these previously reported ---

14 MR. PARTLOW: No, and of course, that is something
15 that is always going on is check in and asking, how are things
16 going, looking at how the reconciliation is going. The last
17 thing I heard from him before this happened was that he sort of
18 expected another inventory difference like the most recent
19 inventory difference.

20 MR. STELLO: As of Friday they weren't expecting
21 a difference anywhere near this large. What I heard on Friday
22 was -- am I right, []

23 COMMISSIONER GILINSKY: Well, that was what I heard.
24 Somebody told me, was that you, Bill?

25 MR. DIRCKS: Yes, I only threw that number out. I only

1 threw it out because the shutdown number was 9, and I think
2 as the result of our meetings with this outfit, we have reached
3 the point of frustration that I sort of indicated, well, if
4 it comes in at 7 or 8, they are going to get a shutdown.

5 MR. PARTLOW: Also there has been some speculation,
6 as I said, we have developed this regression analysis that sort
7 of tracks the inventory, you know, doesn't explain the inventory
8 difference. And in our feeling of how they were -- the amount of
9 activity going on in the plant, we were sort of saying that this
10 model is going to predict a loss in maybe the [] area.

11 MR. STELLO: Someone told me that one of the issues
12 that the union brought up is that if you operate the plant with
13 the salaried people, in the meantime, you are going to have a
14 real problem with the MUF. Was that a forecast of the union?
15 Do we know that for a fact?

16 MR. DIRCKS: I think you are referring to that phone
17 call that somebody received. Was that you, -- Was it Mike Smith?

18 MR. PARTLOW: I never heard anything like that. Mike
19 Smith had a call from a union member who wanted to talk about
20 his feelings that the salaried people may not be qualified to
21 operate the effluent system safely to release material to the
22 environment.

23 MR. STELLO: No, no. Specifically on the MUF. If the
24 salaried people ran the plant there was a question of whether
25 or not they would be able to run it in such a way there was going

1 to be a MUF. There ought to be a way to find it out. I thought
2 that was one of the issues the union raised.

3 MR. PARTLOW: I never heard that.

4 MR. STELLO: Okay.

5 MR. PARTLOW: I guess some of the strike did have that
6 tone in it. When the strike first happened there was some
7 rock throwing in the parking lot. NFS fired 10 employees, and
8 the issue of whether or not they were to be rehired at the end
9 of the strike was one of the things that kept the strike going for
10 a while.

11 MR. DIRCKS: Well, things were rather tense down there.
12 The^Y_A had the salaried employees working 12-hour shifts, running
13 this picket line, being pelted with rocks, so things were -- they
14 had a lot of distractions.

15 COMMISSIONER GILINSKY: Well, let me get back to our
16 activities. What are our people going to be doing over this
17 time?

18 MR. PARTLOW: Okay, that's the next chart.

19 (Slide)

20 They are down there now monitoring the separations for
21 physical inventory, that is going to be conducted about the 27th.
22 This is just looking to see that we are making the right
23 decisions every time, on putting that plant, as soon as possible,
24 into an inventory mode.

25 We are reviewing the performance of the security and

1 accountability systems. Now, what this means, for example,
2 one team of inspectors, last night and this morning, reviewed
3 all of the records having to do with entrance into and people
4 leaving from material access and vault-type rooms. That was
5 a two-man team, an inspection team, and they have finished that
6 effort and they found no discrepancies in any of their records
7 that have to do with people and material coming and going in the
8 vault and MAA.

9 Another team is reviewing the whole item control system.
10 There is a system down there that -- a large amount of this
11 material is in discrete items. There are [] in the plant,
12 and about [] of it is in different kinds of containers, which
13 are largely in vaults or coming out of the vaults to go into the
14 process.

15 COMMISSIONER GILINSKY: How much moves through that
16 plant a month, say?

17 MR. PARTLOW: [] a month, about [] for a
18 two-month material balance period. At a snap-shot inventory
19 at any time, you would find about [] there.

20 COMMISSIONER GILINSKY: If all of that [] and
21 some in a state of process, how much of it is in storage?

22 MR. PARTLOW: None is long-term storage, except for
23 some minor amounts of archive samples and so forth. It is
24 basically a ---

25 COMMISSIONER GILINSKY: So they are really working on

1 a large part of that at all times?

2 MR. PARTLOW: Yes.

3 COMMISSIONER AHEARNE: So they don't have a large
4 time-lag then between completion and shipment?

5 MR. PARTLOW: No. I don't remember the number for
6 NFS, but a typical number of B&W is less than 30 days, which is
7 sort of an average residents time for some typical piece of
8 material.

9 COMMISSIONER BRADFORD: And what is it shipped out of
10 there in?

11 MR. PARTLOW: It is shipped out in a powder form, to
12 United Nuclear in Montville, Connecticut and B&W at Lynchburg,
13 Virginia.

14 Now, teams are reviewing the whole item control
15 system to insure that any item that was created has been tracked
16 through its proper hands, that it is on hand in the inventory if
17 it is supposed to be, and that two people checked it, and that
18 the seals were intact. That process is about 50 percent complete,
19 as of noon today, when the inspectors called in.

20 They are reviewing the actual physical inventory
21 listings that the licensee used to take his inventory, and they
22 are reviewing the computer runs that the licensee uses to come
23 up with the final inventory difference. Another team is doing
24 that, it is about 10 percent finished.

25 Another man is looking at all of the external

1 transfers, all of the records of the amount of UF-6 that came
2 into the plant, all of the records of products that left the
3 plant. He is looking at the measured discard system, the
4 waste water treatment facility, accountability checks plus
5 over-checks and he is going through those to see if the over-
6 checks match the accountability checks.

7 COMMISSIONER BRADFORD: It all comes in as UF-6?

8 MR. PARTLOW: It all comes in as UF-6.

9 MR. THOMPSON: Are you sure it all goes out in powder
10 form? Tom was telling me yesterday he thought it went out in
11 pellets?

12 MR. STELLO: It is []

13 COMMISSIONER GILINSKY: The composition is in
14 [] which is classified.

15 MR. PARTLOW: Yes. In fact, the word []
16]" are classied by the Navy. Even the words plus
17 the composition of them.

18 COMMISSIONER GILINSKY: I was surprised to see the
19 enrichment in the paper. I thought that was classified too.

20 MR. PARTLOW: It is odd, but it is not.

21 COMMISSIONER GILINSKY: 97 percent is not classified?

22 MR. PARTLOW: No, no.

23 COMMISSIONER AHEARNE: I think that's common knowledge.

24 MR. PARTLOW: The percent uranium in the fuel is
25 classified, but not the percent enrichment, U-235. I think NFS

1 used to be in a small Navy metal program, Lynchburg deals
2 in metal, but NFS doesn't.

3 COMMISSIONER GILINSKY: What sort of a group are we
4 going to continue to have there?

5 MR. PARTLOW: I don't know that that's been decided.

6 There is this initial -- there are a couple more points
7 that I want to cover, but there is an initial thrust going on,
8 to the extent that those things are fertile, why we will keep
9 on, on them. If they don't turn up with anything and we are
10 finished with them, we are sort of left with the next point,
11 which is the taking of the inventory next week.

12 COMMISSIONER GILINSKY: How many NRC ---

13 MR. PARTLOW: Well, I think maybe Vick can answer that,
14 but I think the plan is that a few more people will be needed
15 from I&E to cover the inventory teams.

16 MR. STELLO: We have some people going out now with
17 some sensitive instruments to do a physical search, with the
18 thought in mind that someone intentionally left something
19 in a pipe or just literally go through the hallways, the
20 lockers, the whole plant, a physical search, a couple of guys.

21 I suspect that between now and next week they will
22 be finished with it, but we will probably have 5 or 6.

23 COMMISSIONER GILINSKY: Well, this is really a search
24 for an object that may have been placed somewhere in the plant.

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MR. STELLO: Or objects.

COMMISSIONER GILINSKY: Let's see, how do you discriminate or how do you know which one isn't in the books?

MR. PARTLOW: Well, they are going to look in places where you wouldn't normally expect to find it, like the lunch room ---

MR. STELLO: The lockers, hallways, machine shops.

COMMISSIONER GILINSKY: The company doesn't have instruments to do that?

MR. STELLO: Yes, I'm sure they do, but we are going to do it too.

COMMISSIONER AHEARNE: I'm glad that you are doing it.

MR. PARTLOW: That was my last point of what the team is doing the plant search and that will get me over to the last chart.

(Slide)

This chart relates to what might we find, and how might we find it. To tie into what Vick said, item number 3 is one that we might find, and that might be some kind of internal diversion to embarrass the plant, and we are doing a plant search.

Although the FBI still remains a contingency action, that is one possible method of flushing out something like that.

So this is just a list of what we might have to work

1 with over the coming weeks. The most hopeful thing is the
2 accounting mistake, a simple accounting mistake. That is the
3 purpose of these audits that are going on now and to a large
4 extent we will be looking through the inventory.

5 COMMISSIONER GILINSKY: Were you thinking that
6 somebody used the wrong numbers or are you including in that
7 measurement errors?

8 MR. PARTLOW: All of those, a variety of things that
9 could represent just an innocent mistake in counting up an
10 inventory.

11 COMMISSIONER GILINSKY: I think you answered this
12 before, but I want to ask you again. In regard to this number
13 as exceeding the measurement uncertainties in the system ---

14 MR. PARTLOW: The expected measurement uncertainty is
15 around 3, 4, 5.

16 COMMISSIONER AHEARNE: That is those dotted lines in the
17 chart?

18 MR. PARTLOW: That is those dotted lines on the chart.

19 COMMISSIONER GILINSKY: I understand, I just wanted to
20 make sure.

21 COMMISSIONER AHEARNE: Do you have good -- do they
22 have records of receipt of the kind of material that has been
23 shipped out during this period, records of ---

24 MR. PARTLOW: Yes. We have contacted United Nuclear
25 and B&W to report in on anything unusual about any of the

1 receipts they have gotten from NFS. Luckily, there has been
2 no burials during this time, so we don't have to worry about
3 going out and getting something out of the ground.

4 COMMISSIONER AHEARNE: If you were to know for sure --
5 say if you were to know of an 80 percent or 70 percent shortage,
6 that it really was not in the accounting area, that it was
7 an attempt to take the material, what different would you do
8 than you are doing now?

9 MR. DIRCKS: Call in the FBI.

10 COMMISSIONER AHEARNE: But as far as what the NRC
11 people would be doing, you wouldn't be doing anything different?

12 MR. DIRCKS: I think the hesitancy of the FBI to come
13 in to it is that we have got an awful lot of number work to do
14 before they can get involved.

15 COMMISSIONER AHEARNE: Right. What I'm trying to find,
16 though, is there something that you would have done, either I&E
17 or NMSS, what your people would be doing that you are not doing
18 yet because you don't really think there is a diversion.

19 MR. DIRCKS: I think that's one reason why we are
20 going through this whole thing.

21 MR. PARTLOW: The only thing that pops to my mind is
22 NRC investigators ask the questions.

23 MR. STELLO: I think if you were serious about thinking
24 that happened or we were strongly suspicious, probably, and I
25 suspect that it ought to be pretty much together with the FBI.

1 There are ways to go about looking for places for material other
2 than the plant, and I think you probably would want to do that.

3 COMMISSIONER BRADFORD: And that is other than what the
4 NEST Teams will be doing?

5 MR. STELLO: Do you mean the ARMS flight?

6 COMMISSIONER BRADFORD: Yes.

7 MR. DIRCKS: I think all we are doing with this
8 request for the ARMS flight is just beginning this thing,
9 the [] that might have gotten out.

10 MR. PARTLOW: There is more on-the-ground mobile
11 equipment that can go into homes, that type of thing and search.

12 MR. SNYDER: That would all be an FBI lead, right?
13 They would have that responsibility in those kinds of
14 investigations and DOE would have to support it. Is that the
15 arrangement?

16 MR. STELLO: We would tend to support them, but I
17 don't see any reason why we couldn't, on our own, if we felt the
18 need to go out and start looking elsewhere.

19 MR. DIRCKS: That's an interesting point.

20 MR. STELLO: The FBI involvement, -- I think there is
21 a tremendous amount of pressure given, at this point, of ever
22 resolving itself, as to whether we ought to have looked at
23 the possibility of assuming that there was a diversion and let
24 the FBI try to find out if indeed there was. Having them come
25 up with a negative finding, I think would be very useful to have.

1 I don't know if we have ever done that before.

2 MR. CUMMINGS: We will have to do our best effort
3 on the inventory, but until the stuff is accounted for, they
4 couldn't come up with a negative finding.

5 MR. STELLO: Is that really necessary in order to
6 turn them on?

7 MR. DIRCKS: Well, they won't get turned on unless
8 we really yank their chain awfully hard. They just don't want to
9 move until we do a little more work down there.

10 Now if we say -- despite what we feel now, we want you
11 in there for this, there has been a diversion. They will move,
12 but I tell you, they move very unwillingly.

13 COMMISSIONER AHEARNE: Well, the gist of my question
14 really is that if we had a set of procedures that we were to
15 follow and, one is, if there is an inventory difference and
16 we really are very uncertain as to where the material might be
17 hung up in the plant or very uncertain as to which of the records
18 were kept accurately, then it would appear that most of the things
19 that you are doing are exactly what you did. There is another
20 set of procedures which were: we have pretty high, reasonable
21 certainty that the material was diverted or stolen, that would,
22 I guess, be another set of procedures.

23 Now, the point you mentioned, one of the first things
24 should be definitely have the FBI in. Putting that one aside,
25 I want to make sure that there aren't some other things that you

1 would be doing that you are not doing until 30 days from now, when
2 you have gone through all of this inventory and found, well, it is
3 just not showing up anywhere. Therefore, it must have been a
4 lot of time wasted.

5 MR. STELLO: Once you take the essential, you do all
6 the things that we can do and the final number turns out to be
7 [] your question is what do you do then?

8 COMMISSIONER AHEARNE: Yes.

9 MR. STELLO: That's what I'm suggesting is can't we
10 make that assumption now ---

11 COMMISSIONER AHEARNE: Yes, that's right.

12 MR. STELLO: -- and that's why I'm suggesting, can't
13 we make that assumption now ---

14 COMMISSIONER AHEARNE: Right, I would think we should.

15 MR. STELLO: -- because I don't think, from what I
16 have heard, anyone expects all of the arithmetic to make the
17 number go away, taking as a given, that you are going to have
18 a number, and it is not going to be a small number. It is not
19 going to fit within the whole range of the data. Now, what do
20 you do? That's one of the things they suggest, and I think
21 since you have never done it before, at some point you do turn
22 in to the FBI to find out what they can find out.

23 MR. DIRCKS: Well, that's the thought that ran through
24 my mind when I talked to the FBI today. My immediate reaction
25 is, what's the harm? Let's call them up and get them in there.

1 MR. CUMMINGS: I think they are going to be very
2 hard pressed to turn you down on this. If we can get it up
3 off the desk level ---

4 MR. DIRCKS: Oh, yes. I mean ---

5 MR. CUMMINGS: They are going to be very, very hard
6 pressed to say "no".

7 MR. DIRCKS: I know. But the advice I was getting
8 from the -- Satkowski is, if pressed, I'm sure we would come in,
9 but I feel right now it would be counterproductive to get us
10 into this thing. He would rather keep in the position that he
11 is now, keep the Regional office informed of what is going on,
12 and I believe the Regional office, he mentioned were getting up
13 there to Erwin, at least ---

14 MR. PARTLOW: Bob mentioned the possibility of the local
15 office in Johnson City coming down for just a look at the plant
16 to sort of get a feel for what the situation was.

17 MR. DIRCKS: They are one quarter into it now, but I
18 agree, we could say, despite ---

19 COMMISSIONER GILINSKY: Let me ask you, at what point
20 will we have gone through the examination sufficiently so we
21 know that it isn't a dumb mistake, and that we are really in
22 for the long haul here?

23 MR. STELLO: 36 days.

24 COMMISSIONER GILINSKY: It will be 36 days before we
25

1 know whether it is a dumb mistake?

2 MR. PARTLOW: No, that's until we know the results of
3 the re-inventory.

4 COMMISSIONER GILINSKY: Yes. I'm asking you, before
5 that, in other words, is there some review of the accounting
6 which would be substantially ---

7 MR. DIRCKS: Well, I think by Friday, we are going to
8 have gone through, at least, the records.

9 COMMISSIONER GILINSKY: So by Friday we will know -- at
10 least in 36 days ---

11 MR. DIRCKS: We will know a lot more than we know now.

12 MR. PARTLOW: By next Thursday they are going to be
13 in a position where they can start the re-inventory, and I don't
14 think we would be in a position to decide one way or the other
15 until after the re-inventory, which as I understand, takes another
16 30 days.

17 COMMISSIONER GILINSKY: Right, but initially, they are
18 going through the books. My question is: Did they make some
19 kind of mistake in the books?

20 MR. DIRCKS: Did they enter into the wrong column twice
21 in adding up and then transferring ---

22 COMMISSIONER GILINSKY: They've done that before, too.

23 MR. STELLO: I don't think that's going to give you
24 very much comfort. That's one thing to check off the list.

25 COMMISSIONER GILINSKY: Right, but what I'm saying is

1 that that may be the occasion ---

2 COMMISSIONER BRADFORD: I can't believe that that
3 kind of a thing hasn't already been covered on August 14th.

4 COMMISSIONER GILINSKY: Well, we had an occasion with
5 them where it wasn't, it was entered on the wrong data card.

6 MR. CUMMINGS: That's that basic physical inventory,
7 is it not?

8 MR. DIRCKS: Yes. Going from August 14th they are
9 doing this to September. They are going through that physical
10 data and putting it into the (inaudible)

11 COMMISSIONER AHEARNE: I would tend to agree with
12 Peter on that.

13 MR. PARTLOW: That's what the plant manager told us
14 on the phone Monday afternoon, that he was not optimistic
15 about finding a mistake in the records.

16 COMMISSIONER GILINSKY: So they will have gone through
17 that?

18 COMMISSIONER AHEARNE: I would certainly think they
19 would have.

20 MR. PARTLOW: That is only balanced by the fact that
21 we did put the squeeze on them to get this number back to us
22 on Monday, so it was a hurried number, but I'm sure that they
23 realize what would happen when they reported a number like that.

24 COMMISSIONER GILINSKY: I remember an instance where
25 they had something like a 48 kilogram mistake where they put the

1 wrong data card -- inserted the wrong one or some dumb thing
2 like that.

3 MR. PARTLOW: I don't remember that.

4 COMMISSIONER GILINSKY: If I remember, I think they
5 did. But I guess what I'm saying is that may be the time to
6 make the next decision about ---

7 COMMISSIONER AHEARNE: I would make the assumption ---

8 COMMISSIONER GILINSKY: And that leaves you where?

9 COMMISSIONER AHEARNE: To the actions that we would
10 take that if 36 days from now we find that there are [

11]

12 COMMISSIONER GILINSKY: I was referring to some
13 suggestion that the FBI come in, and I suppose if they come in,
14 they take over the investigation. I was referring to that
15 decision.

16 Let's put that aside for the moment. What would you
17 be doing that you are not doing now if the inventory turns out
18 to still show a loss of []

19 MR. DIRCKS: What we would be doing when?

20 COMMISSIONER GILINSKY: Thirty days from now? What
21 action would we take that we are not taking now?

22 MR. DIRCKS: I can't think of any other action. I
23 don't know how much more we can charge through the thing.

24 (Inaudible) We really can't do much more ---

25 MR. STELLO: We can work on-site until we get the FBI

1 involved. Until they get involved here, we are pretty limited.

2 COMMISSIONER GILINSKY: So you are really talking
3 about off-site actions.

4 MR. STELLO: Yes. There has to be a way to reach some
5 sort of compromise, short of turning the whole thing over to the
6 FBI, trying to find some other way to get more assurance to deal
7 with these issues.

8 COMMISSIONER GILINSKY: What do you have in mind?
9 What sort of a ---

10 MR. STELLO: The thought I had in mind originally is
11 if we can get the FBI involved, and I remember hearing about it
12 once before, where the FBI can go in and really start looking at
13 homes.

14 MR. CUMMINGS: That's going to be tough.

15 MR. PARTLOW: At B&W a couple years ago there was
16 an allegation that somebody was sneaking something, so we called
17 the FBI, they came in, and what they did was to interview people.
18 The talked with the plant manager and people they interviewed,
19 based on employment records, those types of things, they talked
20 to people.

21 MR. STELLO: Did they actually go to the homes of
22 people and check them out?

23 MR. CUMMINGS: Well, people can waive that. The agent
24 can ask the individual in the course of the interview, it is
25 only a story, and by the way, would you consent to us going to your

1 home and searching your home or what have you. The individual
2 can say, yes, I agree to that and he can go an search the home,
3 it is a voluntary consent, you can bring an instrument with you
4 to detect the presence of material and that is all very possible.
5 It is also very possible that the individual can say, no, I don't
6 consent to that, in which case you would probably say, thank you
7 very much and you go on to whatever the next step is along the
8 process.

9 COMMISSIONER GILINSKY: Since we don't seem to be very
10 specific, I wonder if we could meet again tomorrow to discuss --
11 at that time have thought about what we would be doing if the
12 answer turns out to be that the loss or discrepancy is still
13 there. We can reflect on whether or not we ought to be doing
14 that right now, as well as taking further action. Bringing the
15 FBI in.

16 MR. STELLO: If you bring the FBI in, I think the
17 question is essentially they take over. Isn't that true?

18 MR. PARTLOW: I don't know how this has worked in
19 the past. I don't think that the FBI wants to review things
20 that we have done and we could ---

21 COMMISSIONER GILINSKY: Well, could we get very clear
22 on just exactly where our responsibilities ---

23 COMMISSIONER AHEARNE: On that memo of understanding,
24 are you going to contact the FBI?

25 MR. GOSSICK: I really haven't -- We have a working

1 contact, and if we need to go above that, there is a fellow
2 by the name of ---

3 COMMISSIONER GILINSKY: Could we meet again
4 tomorrow. We can still take any questions anybody may want to
5 ask, but could we meet again tomorrow and by that time be
6 very clear on what our respective responsibilities are, how
7 quickly responsibilities will be shifted if we decided to ask
8 the FBI to take a more active role, and I don't know whether it
9 sor of a they are either out or they are in or whether there is
10 any intermediate involvement.

11 COMMISSIONER AHEARNE: And specifically, what actions
12 would ---

13 COMMISSIONER GILINSKY: Well, I was going to ask Bill
14 and Vick to think about what actions they might be taking if
15 30 days from now it turns out this discrepancy doesn't go away.
16 Then consider whether we ought to be taking it right now.

17 COMMISSIONER BRADFORD: Well, when we were missing
18 LEU in Wilington, we activited the Response Center.

19 MR. DIRCKS: Well, but at that time we had a note
20 that somebody took it.

21 COMMISSIONER BRADFORD: But there is some threshold ---

22 MR. GOSSICK: We've addressed that question, should
23 we activate the Center and agreed that at least at the present
24 time we don't see any need for it. They could suport us in
25 communications, but as far as picking up that office ---

1 COMMISSIONER BRADFORD: How much is []]
2 97 percent HEU worth?

3 COMMISSIONER AHEARNE: I think that is probably like
4 asking, what is a stamp that has an inverted airplane on it.

5 MR. PARTLOW: Its value as uranium fuel, I guess, is
6 \$100,000 per kg, I think.

7 COMMISSIONER GILINSKY: I think it is more than that.

8 COMMISSIONER AHEARNE: That quantity and that purity ---

9 COMMISSIONER BRADFORD: Okay, but that establishes the
10 lower bounds, and who pays for it?

11 MR. PARTLOW: The Navy contract, even though we call
12 it an inventory difference, NFS has to call it a loss, and they
13 pay for that under their contract with the Navy.

14 COMMISSIONER GILINSKY: Let's find a suitable time for
15 a meeting tomorrow and take a look ---

16 COMMISSIONER BRADFORD: Is that \$100,000 a kg?

17 MR. PARTLOW: If that number is right, Commissioner,
18 I'm not sure of it.

19 COMMISSIONER GILINSKY: Okay, are there any other
20 questions?

21 COMMISSIONER AHEARNE: Yes. Bill, what is the status
22 of their license at the moment?

23 MR. DIRCKS: Well, they have been ordered to come to a
24 halt in the operation, and to close down and take a complete
25 physical inventory, and I assume not to start up again until

1 we give them ---

2 COMMISSIONER AHEARNE: And they are not receiving any
3 more shipments at this time or are they? Is that correct?

4 MR. DIRCKS: That's right, no more shipments out, no more
5 shipments in.

6 COMMISSIONER AHEARNE: And I guess after this begins to
7 get a little clearer, you will be addressing what future actions
8 we should take?

9 MR. DIRCKS: I think, as I indicated earlier, no matter
10 what these inventory differences are, I think it is my intention
11 to close down because there have been a lot of problems there
12 that they will have to straighten out first.

13 COMMISSIONER AHEARNE: And there is a possibility just
14 to close it permanently?

15 MR. DIRCKS: (Nods in the affirmative.)

16 COMMISSIONER AHEARNE: Vick ---

17 MR. SNYDER: An order was issued, right?

18 MR. DIRCKS: An order was issued.

19 MR. GOSSICK: The Navy people are there, did you
20 mention what the Navy are doing?

21 MR. DIRCKS: The Navy contract group are doing
22 quality assurance. They have been there since this incident
23 was reported looking at the quality of the fuel.

24 COMMISSIONER GILINSKY: Let's see, did you brief any
25 of these people?

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MR. DIRCKS: Right, they have been contacted, they have been asked to send people down if they want to. They indicated that they probably would, but they haven't arrived on the scene yet.

COMMISSIONER BRADFORD: What kind of stockpiles are there at Montville, ^{and at} ~~is it~~ and Lynchburg? Can they go on operating for very long?

MR. DIRCKS: Do you mean how long can the Navy operate without the plant?

MR. PARTLOW: Again, I don't know. Several years ago we looked into this in terms of doing something with B&W, and at that time we learned that if B&W were to shut down for [

] it wouldn't perturbate the long-term program, but NFS was operating then.

Now that we have stopped the only supplier, I'll have to find out what affect that would have. But then, I think in the shortterm, maybe cores are in stockpile in the Navy and it isn't a matter of getting one on to a submarine right away.

COMMISSIONER AHEARNE: If we start going down that path, though, that would lead to permanently closing, we ought to certainly keep the Navy abreast of what we are doing, because they might have to try to establish another supplier.

Vick, did you talk to your inspectors down there?

MR. STELLO: (Inaudible)

COMMISSIONER AHEARNE: Was he very surprised by this

1 size of the difference?

2 MR. STELLO: Well, I didn't talk to the Resident, but
3 the impression I had was that there was a surprise on Monday,
4 I wasn't here, but the story I got was this was not what they
5 were expecting on Friday, so yes.

6 COMMISSIONER AHEARNE: How long has the Resident been
7 there?

8 MR. STELLO: About a year, I guess.

9 MR. DIRCKS: August of '78.

10 COMMISSIONER AHEARNE: Could you sort of check with
11 him and see if he has any off-the-record suggestions that he
12 might offer you, to assist in coming up with this set of actions
13 to talk about tomorrow?

14 MR. STELLO: (Nods in the affirmative.)

15 COMMISSIONER GILINSKY: Peter?

16 COMMISSIONER BRADFORD: Nothing.

17 MR. SNYDER: I have a question.

18 COMMISSIONER GILINSKY: Wait a minute Bernie.

19 I would like, as part of our discussion tomorrow, to
20 have the lawyers explain to us any aspects of our legal
21 situation and responsibilities that might not be obvious to us.
22 I wonder if Marty could take care of that, please.

23 MR. CUNNINGHAM: As for the license, I think I can
24 tell you about that in about two sentences right now.

25 The license is so structured that when they exceed ~~by~~

1 9 kilogram amounts, they have three days to reconcile that,
2 and if they can't, they shut down until or unless we tell them
3 they can start up again. The only thing the Order on Monday
4 did was we accelerated their shutdown by three days.

5 COMMISSIONER GILINSKY: Actually, I was thinking more
6 in terms of our relations with the FBI, but it is good to
7 hear that.

8 MR. MALSCH: For example, could we go out into the
9 field and search.

10 COMMISSIONER GILINSKY: For example, yes.

11 COMMISSIONER BRADFORD: What is the significance of
12 that 72-hour provision, that is, they will have had a month
13 before they reported at all, why are they then given 72 more
14 hours?

15 MR. PARTLOW: Commissioner, when we wrote these license
16 conditions last fall, it was our feeling at the time that if
17 a number like that comes in, it must be a dumb mistake, to start
18 with, and before taking this rather drastic action of a plant
19 down for 40-some days, let's allow 72 hours as a final thrust
20 of investigation for that point before taking the plant down.
21 When this number of [] came in on Monday, Bob Burnett and I
22 got together and we said, look, shut down while you are looking,
23 so we modified the license. But that was the intent of that 72
24 hours.

25 COMMISSIONER GILINSKY: Bernie?

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1 MR. SNYDER: Just a quick question. I understand,
2 and correct me if I'm wrong, that much of the equipment in the
3 plant is government owned equipment. Is that right?

4 MR. PARTLOW: I don't think so. I may be wrong.

5 COMMISSIONER BRADFORD: What was this again, Bernie?

6 MR. SNYDER: Well, if you decided to take some things
7 apart, it might be a little easier if it is government owned.

8 I understand, informally at least, that that was done
9 in Apollo and some fair amount of the material was found.

10 MR. PARTLOW: At Apollo they have been cleaning out
11 for the last year.

12 MR. SNYDER: I understand.

13 MR. PARTLOW: And since their books were brought to
14 zero, they have recovered a lot of material out of the plant.

15 MR. SNYDER: Yes. That's my point in asking. I'm not
16 sure that's generally known, but there was a fair amount found
17 in the ---

18 MR. PARTLOW: They are not finished yet, but ---

19 MR. SNYDER: Has there been some kind of a report
20 of that made?

21 COMMISSIONER GILINSKY: Is there anything else that
22 anybody else wants to bring up?

23 Okay, why don't we meet again tomorrow. We will pick
24 a suitable time and inform you when to be here.

25 (Whereupon the meeting was concluded at 3:35 p.m.)

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