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U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, DC 20515

July 8, 1986

The Honorable Lando W. Zech, Jr.
Acting Chairman
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chairman:

During the course of the Subcommittee on Oversight and Investigations' June 11, 1986 hearing on the Tennessee Valley Authority's nuclear program, I raised the issue of the TVA's adherence to its commitments regarding the conduct of its welding program. I am enclosing the relevant pages of the hearing transcript and call your attention to the dialogue on page 214, at lines 5061-5063:

Mr. Dingell: What does that do with regard to the original commitments made to NRC, do they meet them?

Mr. Kelly: Yes.

Mr. Kelly thus stated, in effect, that TVA's welding program has been implemented in accord with TVA's licensing commitments.

Statements in conflict with Mr. Kelly's affirmation were made at a meeting on June 25 between the TVA and NRC staffs. Dr. Liaw said that the NRC had seen results of weld reinspections indicating that roughly 50% of components that had been reinspected were rejectable by the original inspection standards. Dr. Liaw said that the rejection rate appeared extremely high considering that the reinspected welds had been previously inspected and accepted.

Dr. Liaw also noted that the TVA had proposed a "suitability-for-service" criteria for weld acceptance and that this was a significant departure from the TVA's original licensing commitment.

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PDR COMMS NRCC
CORRESPONDENCE PDR

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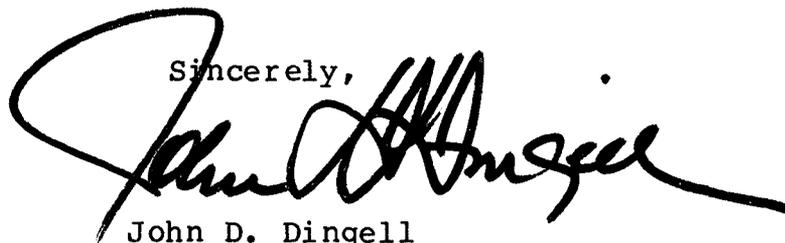
The NRC staff also described significant deficiencies in the TVA's project management plan for its weld review program at Watts Bar. The NRC staff noted that the plan had been submitted on May 23, 1986, although the TVA had promised on January 7 that it would be submitted by January 23.

There appears to be a significant discrepancy between information provided the Subcommittee at the June 11 hearing and facts described at the June 25 meeting with the TVA and NRC staffs. To help clarify the situation, please answer the following questions prior to July 20, 1986:

1. Is it the NRC position that the TVA's welding program at Watts Bar has been implemented in accordance with the TVA's licensing commitments?
2. Has the TVA informed the NRC that the TVA's welding program at Watts Bar has been implemented in accordance with the TVA's licensing commitments?
3. Are the statements of Mr. White and Mr. Kelly on pages 211-215 of the enclosed transcript regarding the welds situation accurate and complete?

If you have any questions regarding this request, please contact Messrs. Peter Stockton or Bruce Chafin of the Subcommittee staff at 225-4441. Thank you for your cooperation in this matter.

Sincerely,



John D. Dingell
Chairman
Subcommittee on
Oversight and Investigations

JDD:PSdb

Enclosure

4978 right now are through Stone & Webster for my services.

4979 Mr. DINGELL. So you had Stone & Webster, for whom you
4980 worked, review this, and you had TVA, for whom you worked,
4981 review this, is that correct?

4982 Mr. WHITE. That is correct. But you put your finger on
4983 one of the reasons why I wasn't satisfied until I went
4984 further. I think when you are talking about the public
4985 health and safety, I am going to leave no stone unturned,
4986 and this is an example. I would be happy to go into other
4987 ones.

4988 You heard testimony this morning about hangars from Mr.
4989 Washer, I believe. Mr. Washer is exactly correct. A year-
4990 and-a-half ago those hangars, the calculations were done, as
4991 I understand it, they were satisfactory, as I understand it.

4992 TVA made a terrible mistake in destroying those records.
4993 An outside look came in and, just as Mr. Washer said they
4994 said, we have looked at 60, so they all must be good. That
4995 issue came to me, I don't know, a couple months ago and I
4996 said that is crazy, I want all the recalculations done on
4997 that hangars, and it will cost money, but I will leave no
4998 stone unturned to assure safety of those plants. So
4999 depending on the problem, the approach may be different.

5000 Mr. DINGELL. How about the weld situation, do you have
5001 any quarrel with their comments with regard to welds?

5002 Mr. WHITE. When you say the weld situation, I can best

5003 explain it by saying we have gone out through an interagency
5004 agreement with the Department of Energy to hire EG&G, a
5005 contractor for the Department of Energy, and we have paid
5006 them \$4 million to come in and review the program, the
5007 welding program.

5008 Mr. DINGELL. How about reviewing the welds?

5009 Mr. WHITE. I will get to that in a minute. It is a very
5010 good question, Mr. Chairman.

5011 They have essentially completed their review of the
5012 program, and by that I mean literally they are 99.9 percent
5013 complete with that review, and they have found, and this is
5014 important, they have found no deviation from Appendix B, no
5015 deviation from Appendix B, and no deviation from the ASMY-
5016 AWS standards or the final safety analysis report.

5017 They are now in the process, Mr. Chairman, of
5018 reviewing--looking at in this group about 7,000 welds to
5019 insure they are adequate for service. That would cost--

5020 Mr. DINGELL. That is out of how many welds?

5021 Mr. WHITE. I have no idea. Plenty. But 7,000 welds at a
5022 cost, an additional cost of about \$16 million.

5023 So to get out of the welding problem, we are having to pay
5024 \$20 million to assure that those welds are adequate for
5025 service. We are doing that again--

5026 Mr. DINGELL. I assume you are doing that with supreme
5027 confidence all these welds are good?

5028 Mr. WHITE. I would hope they re. To date, the ones to
5029 date, the information I have, those evaluated, there are
5030 none that are not acceptable for service.

5031 Mr. DINGELL. None that you have found so far?

5032 Mr. WHITE. That is correct, but they are still looking.
5033 I can't prejudge what they will find.

5034 Mr. DINGELL. What does that mean? Does that mean that
5035 they are in full accord with the requirements of NRC?

5036 Mr. WHITE. It means that they are acceptable to the
5037 service. I don't understand your--the program is in
5038 compliance with Appendix B, yes.

5039 Mr. DINGELL. Let us not mince words here. You are saying
5040 they are acceptable for service. I am asking if they meet
5041 the requirements of NRC.

5042 Mr. WHITE. May I ask my expert? I have got a number of
5043 experts in here.

5044 Mr. DINGELL. All right.

5045 Mr. WHITE. Could you stand up, Mr. Kelly, and identify
5046 yourself and your position please?

5047 Mr. DINGELL. Does satisfactory mean for service, or
5048 adequate for service mean they meet the requirements of NRC?

5049 Mr. KELLY. Yes, it does.

5050 Mr. DINGELL. For permitting?

5051 Mr. KELLY. For licensing, that is true.

5052 Mr. DINGELL. For permitting?

5053 Mr. KELLY. For permitting, yes.

5054 Mr. DINGELL. In other words, you are telling us they meet
5055 all of the requirements as set forth in the requirements?

5056 Mr. KELLY. Let me answer the question in two sentences.
5057 They meet all the requirements for Appendix B and for
5058 permitting, they may not meet all the requirements for some
5059 specific code. But on evaluation, they will meet the
5060 service requirements of the code.

5061 Mr. DINGELL. What does that do with regard to the
5062 original commitments made to NRC, do they meet them?

5063 Mr. KELLY. Yes.

5064 Mr. DINGELL. They do?

5065 Mr. KELLY. So far, they do.

5066 Mr. DINGELL. That is 7,000 out of how many?

5067 Mr. KELLY. We have not completed the 7,000--

5068 Mr. WHITE. The question is how many welds there are in
5069 the plant of structural--

5070 Mr. KELLY. Tens of thousands.

5071 Mr. DINGELL. Tens of thousands of welds?

5072 Mr. WHITE. I hope that has been of help, Mr. Chairman, at
5073 least so the committee can understand how I am trying to
5074 approach these technical problems, but please remember, Mr.
5075 Chairman, these are only symptoms of the overall management
5076 problem I am trying to solve. We are spending a lot of time
5077 on the technical issues, my problem is management.

5078 Mr. DINGELL. I want to see you have adequate management,
5079 but I also want to see to it these facilities meet the
5080 requirements of law, permits and so forth. And as I gather
5081 at this particular time, from Mr. Dean's comments, it cannot
5082 be said they do at this particular time.

5083 RPTS BRADFIELD

5084 DCMN ROSS

5085 3:30 p.m.

5086

5087 Mr. WHITE. I am sorry. That they do what?

5088 Mr. DINGELL. It cannot be said that they meet the
5089 requirements of law or permit at this particular time?

5090 Mr. WHITE. I wouldn't be there if there were not problems
5091 that had to be fixed, Mr. Chairman.

5092 Mr. DINGELL. What about the question of cables? The same
5093 situation is true there?

5094 Mr. WHITE. Yes, sir. We are doing a lot of testing. The
5095 exact tests that are being run, in essence, other reviews--I
5096 learned long ago from Admiral Rickover you never depend on a
5097 single source of information. And I will go to whatever
5098 lengths I have to to assure myself of the safety of these
5099 plants before I will recommend any start-up.

5100 Mr. DINGELL. The committee has received information that
5101 one of the managers threatened an EG&G contractor who had
5102 been hired to do the welding contract that they would close
5103 that contract if they did not change their criteria for the
5104 analysis.

5105 Mr. WHITE. I received the report on Friday and
5106 immediately took two steps: one, got my quality assurance
5107 people in to look at the allegations; and called Mr.

5108 Zigrossi. As soon as I completed that technical look, I
5109 wanted him to look into those allegations. There were
5110 allegations from two people out of four who had been
5111 discharged.

5112 Mr. DINGELL. What has happened to that manager since this
5113 event? I gather he has now been chosen to replace the
5114 manager of NSRS as the contract administrator; is that
5115 correct?

5116 Mr. WHITE. The EG&G person.

5117 Mr. DINGELL. No, no. The manager that threatened the
5118 EG&G person has now been chosen by TVA to replace the
5119 manager of NSRS as the contract administrator?

5120 Mr. WHITE. Not to my knowledge. You may have information
5121 I do not have. I will check into it and furnish you the
5122 answer for the record.

5123 Mr. DINGELL. Well, it better be more than just an answer
5124 for the record. I understand the man's name is Mr. Martin.

5125 Mr. WHITE. Mr. Martin is the project manager for welding.
5126 The allegation was not against Mr. Martin.

5127 The allegations that I received were allegations that
5128 certain people in EG&G had done it. And until Mr. Zigrossi
5129 has completed his investigation, I won't have the answers as
5130 to who the individuals are.

5131 Mr. DINGELL. The allegations are against Mr. Martin?

5132 Mr. WHITE. The letter I received did not indicate that.

5133 Mr. DINGELL. You got two people down the that are
5134 threatening contractors. That seems to be rather common
5135 practice around there.

5136 Mr. WHITE. Mr. Chairman, my new program is the program
5137 under which these employee concerns came up.

5138 Mr. DINGELL. Maybe you can tell us about your policies,
5139 then.

5140 Would you allow a manager to take over a contractor group
5141 that he is alleged to have tried to intimidate?

5142 Mr. WHITE. I have no evidence, Mr. Chairman. All I have
5143 is a letter and the verbal reports to people. My employee
5144 concern manager is here, and I can ask him. To date, Mr.
5145 Martin's name has not been brought up to me in this regard.

5146 Mr. DINGELL. How would you define that as a place for
5147 getting objective answers?

5148 Mr. WHITE. Not very good.

5149 Mr. DINGELL. A number of your principal assistants--Mr.
5150 Mason, who had already presided over the events--rather, the
5151 thimble tube accident at Sequoyah in 1984--was alleged to
5152 have improperly accepted bribes--rather, trips, hotel rooms,
5153 and football tickets--from a TVA contractor, and this manager
5154 was subsequently suspended, left TVA, and now been hired
5155 back at a higher salary?

5156 Mr. WHITE. That all happened long before I arrived. You
5157 will have to ask someone else.

B. D. Liao opening remarks at 6/25/86
TVA/NRE mtg re TVA's weld review
B. D. Liao is NRE welder @ Zarr

I just have a brief statement to make.

It has been more than five months since last time we met. As I recall, Lawrence Martin emphatically promised in the January 7 meeting that you would provide the program plan by January 19 and a detailed reinspection program including population definitions with justifications by January 23. He said that you all were going to have the place fully populated. Well, a lot has changed since then. As of this date we still have not received the complete package. We received the program plan dated February 7, and a project management plan for the impending audit at Watts Bar on May 23. And then, this meeting has been scheduled twice previously, only to be cancelled in the last moment; first time being for February 19, and second time April 29. In the week of May 11, we learned only from our resident inspector that you had commenced reinspecting welds. On May 20, Lee Spessard, Al Herdt and I had a conference call to Mr. Martin to confirm that indeed reinspection activities were going on, because we could not get a straight story out of your licensing staff. In the conference call, we advised Mr. Martin that you were proceeding at your own risk, because we might disagree with your reinspection program and you might to go back to expand your program. Mr. Martin indicated that he understood our position.

Since then, we have been monitoring your reinspection activities through Mr. Glen Walton, our Senior Resident for Construction at Watts Bar. We have seen some of the reinspection results, which indicated that roughly 50% of components reinspected were rejectable by the original acceptance standards on the NCIG-01 criteria for the structural welds that require only visual inspection. Not knowing exactly what types of defects you found and considering that these welds were inspected and accepted previously, this rejection rate appears extremely high.

On May 23, we receive your welding project management plan. Our initial reaction was that that was not what you promised on January 7. In general, the plan is deficient in that:

- It does not contain enough details to allow a meaningful review;
- The program does not appear to have addressed vendor welds;
- The program allows for closeouts prior to corrective actions; and
- It is not clear how and when the samples are to be expanded and to what extent.

And then, there appears to be a key issue involved; i.e. you have proposed to use "suitability-for-service" criterion on a statistical basis. This is a significant departure from your original FSAR commitment; i.e., on deterministic basis, that the plant as constructed meets the licensing commitments to either ASME or ASW acceptance standards.

AWS

Recently, there is a new issue being identified regarding your reinspection and/or repair activities for ASME scope components. Namely, you have been urging Sector XI criteria instead of Section III for both Units 1 and 2. For Unit 2, it is clearly a violation. For Unit 1, we believe it is arguable whether you have completed your construction despite the fact that your ANI may have signed off some of the components that you are now making repair and retest. I purposely save this as the last item in my opening statement so that we can discuss it first before going to EG&G portion of the presentation. I believe Mr. Spessard told you in his recent visit to Watts Bar site about our tentative position on this issue. And that remain our positions today. Unless we can quickly resolve this issue we would be soon ready to instruct our resident inspector to cite you for violation.

That is the end of my statement.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

* * *

MEETING WITH TVA ON WATSS BAR
WELDING REINSPECTION PROGRAM

Nuclear Regulatory Commission
Room P-114
Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland

Wednesday, June 25, 1986

The meeting convened at 9:00 a.m., Mr. William O.
Long presiding.

1 advisory member of AWS D1.1 committee.

2 Dr. William Munse, Professor Emeritus of Civil
3 Engineering, University of Illinois, member of AWS and AISC
4 code committees.

5 Dr. Robert Stouts is not with us.

6 We have with us also Carl Czajkowski who was
7 here at the January 7 meeting. Carl is senior staff
8 scientist at BNL, specialized in welding and metallurgical
9 failure analysis.

10 I am going to request that everyone at the
11 meeting, if they are going to be speaking, the first time
12 that you speak, give your name so that our reporter,
13 Rebecca, can keep the names straight. And there is a list
14 of, an attendance list being circulated. If you sign that
15 list, your name will go on the record as being present at
16 the meeting.

17 Finally, I would like to introduce Dr. B.D. Liaw.
18 Dr. Liaw is our technical program manager for TVA welding
19 concerns and he has a few opening remarks.

20 MR. LIAW: It has been more than five months
21 since last time we met. As I recall, Mr. Martin
22 emphatically promised in the famous January 7 meeting that
23 he would provide a program plan by January 19 and a
24 detailed reinspection program, including population
25 definitions with justification by January 23rd. As I

1 recall, his words, you all are going to have a place fully
2 populated.

3 Well, a lot has changed since then and as of
4 this date, we still have not received the complete package
5 as we understand it. We received a program plan dated
6 February 7 and this project management plan for the
7 individual plan at Watts Bar on May 23 and then this
8 meeting has been scheduled twice, only to be canceled in
9 the last moment. First time being for February 19 and
10 second time being February -- I am sorry, April 29th.

11 In the week of May 12, we learned through our
12 resident inspector at Watts Bar that you had commenced
13 reinspecting welds. On May 20th, Al Herdt of Region 2 and
14 myself had a conference call to Mr. Martin and confirmed
15 that indeed reinspection activities were going on. Because
16 we could not get a straight story out of your licensing
17 Staff at that time.

18 In a conference call, we advised Mr. Martin that
19 you were proceeding at your own risk because we -- with
20 your reinspection program and you might have to go back to
21 expand your program.

22 Mr. Martin indicated that he understood our
23 position at that time.

24 Since then, we have been monitoring your
25 reinspection activities through Mr. Grant Walton, our

1 senior resident for construction at Watts Bar. We have
2 seen some of the reinspection results which indicated that
3 roughly 50 percent of components reinspected were
4 rejectable by the original acceptance standard or the
5 NCIG-01 criteria for the structural welds that require only
6 regional inspection. Not knowing exactly what types of
7 defects you have found, and considering that these welds
8 were inspected and accepted previously, this rejection rate
9 appears extremely high to us.

10 On May 23rd, we received your project management
11 plan. Our initial reaction was that that was not what you
12 promised on January 7. In general, the plan is somewhat
13 deficient in that, one, it does not contain enough details
14 to allow meaningful review. Two, the program does not
15 appear to have addressed vendor welds. Three, the program
16 allows for close-out prior to corrective actions. And,
17 four, it is not clear how and when the samples are to be
18 expanded and to what extent.

19 And then there appears to be a key issue
20 involved. That is, you have proposed to use "suitability
21 for service." This is a significant departure from your
22 original FSAR commitment. That is, on this basis, on a
23 deterministic basis that a plant as constructed meets the
24 licensing commitment to either ASME or AWS or B-11 or B-17
25 standards.

1 Recently, there has been a new issue identified
2 regarding your reinspection and/or repair activity for ASME
3 scope components; namely, you have been using Section 11
4 instead of Section 3 for both Watts Bar Unit 1 and 2.

5 In our view, for Unit 2, it is clearly a
6 violation.

7 For Unit 1 we believe it is still arguable
8 whether you have completed your construction, despite the
9 fact that your ANI may have signed off some of the
10 components that you are now making repair and retest.

11 I purposely saved this one as the last item in
12 my opening statement so that we can discuss it first before
13 we go into EG&G portion of presentation.

14 I believe Mr. Spessard told you about our
15 tentative position on this issue and that remains our
16 position today. Unless we can review this one, we will be
17 ready to recommend to our management to instruct our
18 resident inspector to cite you for violation.

19 I hate to give this one, like this, but
20 nevertheless, that is the end of that statement.

21 Mr. Martin, your turn.

22 MR. MARTIN: I am Lawrence Martin, a member of
23 Mr. White's staff and head of the welding task group.
24 Let's take the last one first. I evidently was not in
25 attendance at Mr. Spessard's meeting that he had with Watts