



50-390

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

July 23, 1986

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The Honorable John D. Dingell  
Chairman, Subcommittee on Oversight  
and Investigations  
Committee on Energy and Commerce  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

This is a response to your letter of July 8, 1986, regarding three questions related to the Tennessee Valley Authority's (TVA) welding program as implemented at the TVA Watts Bar site.

As you are aware, on April 21, 1986, the Commission provided the Subcommittee with answers to a number of questions regarding TVA's welding activities. Welding adequacy is one of the early issues that was raised by concerned TVA employees. Because of similar problems experienced at other construction sites (notably at Zimmer, Comanche Peak, and Wolf Creek), the NRC senior staff established a special Task Group, supported by a consultant panel, to coordinate and to manage NRC activities regarding the TVA welding program. As a result, the staff has generally been able to respond expeditiously to TVA's requests for guidance and criteria for resolving concerns and for ascertaining the quality of welds at the Watts Bar plant.

At present, TVA's contractor (U.S. Department of Energy (DOE)/EG&G) is reviewing the TVA welding program and reinspecting welds at Watts Bar to determine adherence to licensing commitments. While the staff considers the logic of the overall program for addressing these issues to be basically sound, the docketed program is deficient in that it contains insufficient detailed information to permit an adequate technical review. Some of the key information needed includes sample size and acceptance criteria, applicability of portions of the ASME Code, certain QA aspects related to welding, and detailed project procedures. These concerns were discussed with TVA at a public meeting on June 25, 1986 and a request for the submittal of additional information from TVA is being prepared by the staff. As stated in our April 21, 1986 letter to the Subcommittee, the staff is monitoring and will review TVA's welding program implementation and final report(s), and will make a finding whether TVA complies with its licensing commitments and, if not, whether the welds are "suitable-for-service."

With regard to the term, "suitable-for-service," the staff does not accept this as equivalent to a licensing commitment to meet specific industry codes and standards unless specifically provided for in the individual codes. Such deviations from these standards, and the licensee's evaluation, must be documented and approved by the staff.

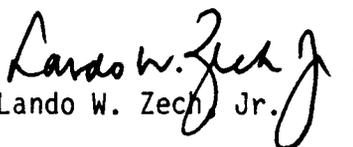
(Originated by BDLiaw)

8608010327 860723  
PDR COMMS NRCC  
CORRESPONDENCE PDR

The answers to your specific questions are provided in the enclosure to this letter. If the Commission can be of further assistance, please do not hesitate to let me know.

Commissioner Roberts did not participate in the formulation of this response. Commissioner Asselstine does not approve this response. He will provide his views separately.

Sincerely,

  
Lando W. Zech Jr.

Enclosure:  
Response to July 8, 1986  
Questions of Congressman Dingell

cc: Rep. Norman F. Lent

RESPONSE TO JULY 8, 1986 QUESTIONS OF CONGRESSMAN DINGELL

Question 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?

Answer

It is the NRC's view that in some significant respects TVA's welding program at Watts Bar has not been implemented in accordance with NRC's understanding of TVA's licensing commitments. Specific examples have been found in the heating, ventilation and air conditioning design and inspection, fit-up inspections, training and qualification of welding inspectors, and inspection through carbo-zinc primer. This is not to say that the overall welding program at Watts Bar is in noncompliance with TVA licensing commitments. Recognizing that our reviews and inspections are still ongoing, the NRC has not yet developed a position on TVA's overall welding program. It is our intention to resolve this and other safety issues prior to licensing and power operation.

Question 2

Has the TVA informed the NRC that the TVA's welding program at Watts Bar has been implemented in accordance with TVA's licensing commitments?

Answer

No. TVA has not submitted any statement regarding compliance of the Watts Bar welding program with TVA's initial licensing commitments. TVA's representative, Mr. Lawrence Martin, stated in the June 25, 1986 meeting (Page 37 of the transcript) that, "...we are not certifying right now in the welding task group or asking anyone else to certify that we met our commitments." It should be noted that TVA certified Watts Bar Unit 1 as being ready to load fuel on February 20, 1985; however, this was rescinded by Mr. White in a letter dated April 11, 1986.

Question 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?

Answer

The staff's review of the DOE/EG&G weld quality evaluation program is still ongoing. The staff received TVA's welding Project Management Plan on May 23, 1986 and met with TVA officials to discuss this plan on June 25, 1986.

The staff is presently uncertain regarding the TVA welding program's overall compliance with Appendix B, as the staff was told on June 25, 1986 that DOE/EG&G was not reviewing QA/QC aspects of welding, but that a TVA Employee Concern Task Group has that responsibility. In response to Chairman Dingell's question on June 11, 1986, the staff presumes Mr. White and Mr. Kelly were referring to the DOE/EG&G review of the written or procedural aspects of the TVA welding program when they stated the program was in compliance with Appendix B. During the June 25, 1986 meeting, DOE/EG&G stated they had identified "no document program deficiency to date." To our knowledge, DOE/EG&G still has not identified to TVA any programmatic deviations to the requirements of Appendix B. However, there are some implementation issues. As discussed on June 25 by Dr. Liaw, the quality of a number of welds reinspected by EG&G were found to be defective with respect to original acceptance codes and therefore require evaluation by TVA. It is also our understanding that the scope of the DOE/EG&G program review was limited to certain codes, regulatory guides, and standards (which assure, in part, Appendix B requirements are met) but they did not review TVA conformance to other applicable Appendix B related standards, such as the ANSI N45-series. Therefore, in light of the complex nature of the welding issues and our uncertainty regarding Mr. White's understanding of the question, we are unable to judge whether Mr. White's and Mr. Kelly's responses to the Subcommittee questions on Pages 211-215 of the transcript are accurate and complete. The Commission suggests that the Subcommittee request that Mr. White and Mr. Kelly further clarify their statements made on June 11, 1986.

Finally, there appears to be some inconsistencies between Mr. White's and Mr. Kelly's statements and information provided to the staff in a meeting on June 25, 1986. Regarding the number of welds being inspected, on June 11, 1986, Mr. White and Mr. Kelly stated that DOE/EG&G is looking at approximately 7,000 welds. The staff was told on June 25, 1986 that the initial scope covers roughly 15,000-16,000 welds in 1,600-1,700 components. With regard to program completion, on June 11, 1986, Mr. White stated that the DOE/EG&G review of the procedural aspects of TVA welding program was literally 99.9% complete. The staff was told on June 25, 1986 that this review was about 90% complete. The NRC has started and will continue to look into these inconsistencies in the course of reviewing and approving this program.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

OFFICE OF THE  
CHAIRMAN

The Honorable John D. Dingell  
Chairman, Subcommittee on Oversight  
and Investigations  
Committee on Energy and Commerce  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

I am responding to your letter of July 8, 1986 to me. In that letter, you requested a response to three questions related to the Tennessee Valley Authority's (TVA) welding program as implemented at the TVA Watts Bar site.

As you are aware, on April 21, 1986, the Commission provided the Subcommittee with answers to a number of questions regarding TVA's welding activities. Welding adequacy is one of the early issues that was raised by concerned TVA employees. Because of similar problems experienced at other construction sites (notably at Zimmer, Comanche Peak, and Wolf Creek), the NRC senior staff established a special Task Group, supported by a consultant panel, to coordinate and to manage NRC activities regarding the TVA welding program. As a result, the staff has generally been able to respond expeditiously to TVA's requests for guidance and criteria for resolving concerns and for ascertaining the quality of welds at the Watts Bar plant.

At present, TVA's contractor (U.S. Department of Energy (DOE)/EG&G) is reviewing the TVA welding program and reinspecting welds at Watts Bar to determine adherence to licensing commitments. While the staff considers the logic of the overall program for addressing these issues to be basically sound, the docketed program is deficient in that it contains insufficient detailed information to permit an adequate technical review. Some of the key information needed includes sample size and acceptance criteria, applicability of portions of the ASME Code, certain QA aspects related to welding, and detailed project procedures. These concerns were discussed with TVA at a public meeting on June 25, 1986 and a request for the submittal of additional information from TVA is being prepared by the staff. As stated in our April 21, 1986 letter to the Subcommittee, the staff is monitoring and will review TVA's welding program implementation and final report(s), and will make a finding whether TVA complies with its licensing commitments, and if not, whether the welds are "suitable-for-service."

The answers to your specific questions are provided in the enclosure to this letter. With regard to your questions, a review of the relevant portion of the transcript of the June 11, 1986 Subcommittee hearing indicates there may be discrepancies between information provided to the Subcommittee and that provided to the staff. For example, in a meeting on June 25, 1986, the staff was told that the DOE/EG&G contract did not cover QA/QC aspects related to welding or compliance with the NRC's requirements for QA (10 CFR 50, Appendix B).

The Honorable John D. Dingell

- 2 -

Further, "suitable-for-service" is not equivalent to a licensing commitment to meet specific industry codes and standards unless specifically provided for in the individual code. Such deviations from these standards, and the licensee's evaluation, must be documented and approved by the staff.

If the Commission can be of further assistance, please do not hesitate to let me know.

Sincerely,

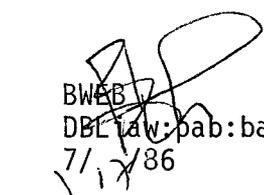
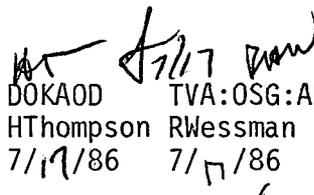
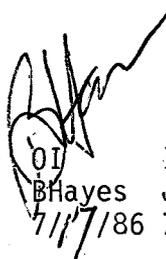
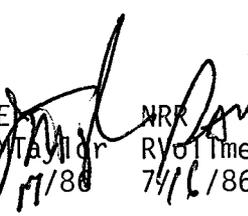
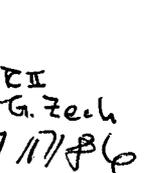
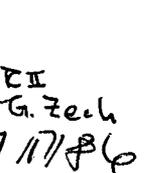
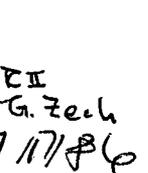
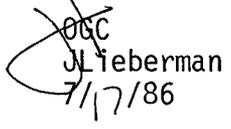
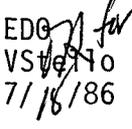
Lando W. Zech, Jr.  
Chairman

Enclosure: Response to July 8, 1986  
Questions of Congressman Dingell

cc w/encl: James T. Broyhill

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RESPONSE TO JULY 8, 1986 QUESTIONS OF CONGRESSMAN DINGELL

Question 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?

Answer

The staff has not taken an overall position regarding whether TVA's welding program has been in compliance with the TVA's licensing commitments. However, there is information on record to indicate that, in some significant respects, the program may not have been implemented in accordance with commitments; e.g., issues related to the heating, ventilation and air conditioning (HVAC) design and inspection, fit-up inspections, training and qualification of welding inspectors, and inspection through carbo-zinc primer.

Question 2

Has the TVA informed the NRC that the TVA's welding program at Watts Bar has been implemented in accordance with TVA's licensing commitments?

Answer

No. TVA has not submitted any statement regarding compliance of the Watts Bar welding program with TVA's initial licensing commitments. TVA's representative, Mr. Lawrence Martin, stated in the June 25, 1986 meeting (Page 37 of the transcript) that, "...we are not certifying right now in the welding task group or asking anyone else to certify that we met our commitments." It should be noted that TVA certified Watts Bar Unit 1 as being ready to load fuel on February 20, 1985; however, this was rescinded by Mr. White in a letter dated April 11, 1986.

Question 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?

Answer

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Furthermore, as stated in the body of this letter, the "suitable-for-service" criterion mentioned by Mr. Kelly does not necessarily meet the original licensing commitment.

OK  
H. J. H. H. H. H. H.  
7/18/86



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

OLD DRAFT

The Honorable John D. Dingell  
Chairman, Subcommittee on Oversight  
and Investigations  
Committee on Energy and Commerce  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

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At present, TVA's contractor (U.S. Department of Energy (DOE)/EG&G) is reviewing the TVA welding program and reinspecting welds at Watts Bar to determine adherence to licensing commitments. While the staff considers the logic of the overall program for addressing these issues to be basically sound, the docketed program is deficient in that it contains insufficient detailed information to permit an adequate technical review. Some of the key information needed includes sample size and acceptance criteria, applicability of portions of the ASME Code, certain QA aspects related to welding, and detailed project procedures. These concerns were discussed with TVA at a public meeting on June 25, 1986 and a request for the submittal of additional information from TVA is being prepared by the staff. As stated in our April 21, 1986 letter to the Subcommittee, the staff is monitoring and will review TVA's welding program implementation and final report(s), and will make a finding whether TVA complies with its licensing commitments and, if not, whether the welds are "suitable-for-service."

With regard to the term, "suitable-for-service," the staff does not accept this as equivalent to a licensing commitment to meet specific industry codes and standards unless specifically provided for in the individual codes. Such deviations from these standards, and the licensee's evaluation, must be documented and approved by the staff.

The Honorable John D. Dingell

- 2 -

The answers to your specific questions are provided in the enclosure to this letter. If the Commission can be of further assistance, please do not hesitate to let me know.

Sincerely,

Lando W. Zech, Jr.  
Chairman

Enclosure:  
Response to July 8, 1986  
Questions of Congressman Dingell

cc w/encl: James T. Broyhill

RESPONSE TO JULY 8, 1986 QUESTIONS OF CONGRESSMAN DINGELL

Question 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?

Answer

The staff has not taken an overall position regarding whether TVA's welding program has been in compliance with the TVA's licensing commitments. However, there is information on record to indicate that, in some significant respects, the program may not have been implemented in accordance with commitments; e.g., issues related to the heating, ventilation and air conditioning (HVAC) design and inspection, fit-up inspections, training and qualification of welding inspectors, and inspection through carbo-zinc primer.

Question 2

Has the TVA informed the NRC that the TVA's welding program at Watts Bar has been implemented in accordance with TVA's licensing commitments?

Answer

No. TVA has not submitted any formal statement regarding compliance of the Watts Bar welding program with TVA's initial licensing commitments. TVA's representative, Mr. Lawrence Martin, stated in the June 25, 1986 meeting (Page 37 of the transcript) that, ". . . we are not certifying right now in the welding task group or asking anyone else to certify that we met our commitments." It should be noted that TVA certified Watts Bar Unit 1 as being ready to load fuel on February 20, 1985; however, this was rescinded by Mr. White in a letter dated April 11, 1986.

Question 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?

Answer

It is difficult to judge whether Mr. White's and Mr. Kelly's statements on Pages 211-215 of the transcript are accurate and complete because the staff's review of the TVA welding program is still ongoing. The staff received TVA's welding project management plan on May 23, 1986, and met with TVA officials to discuss this plan on June 25, 1986; the staff has still not received the details of the DOE/EG&G reinspection program. However, there are several inconsistencies between the statements in the transcript and information provided to the staff, such as the number of welds being reviewed by EG&G and the conformance of the TVA welding program to the requirements of Appendix B.

Enclosure

On June 11, 1986, Mr. White and Mr. Kelly stated that DOE/EG&G is looking at approximately 7000 welds; the staff was told on June 25, 1986 that the initial scope covers roughly 15,000-16,000 welds in 1600-1700 components. The staff is presently uncertain as to the basis for statements made to the Subcommittee regarding compliance with Appendix B, as the staff was told on June 25, 1986 that DOE/EG&G was not reviewing QA/QC aspects of welding nor TVA's compliance with Appendix B, but that the TVA Employee Concern Task Group has that responsibility.

As stated in the body of this letter, the "suitable-for-service" criterion mentioned by Mr. Kelly does not necessarily meet the original licensing commitment.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

**ACTION**

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FROM: REP. DINGELL

DUE: 7/17/86

EDO CONTROL: 1930  
DOC DT: 7/8/86  
FINAL REPLY:

*Due to Denton  
7/14/86*

TO: CHAIRMAN ZECH

FOR SIGNATURE OF:  
CHAIRMAN ZECH

**\*\* PRIORITY \*\***

SECY NO:

DESC:

Q'S CONCERNING TVA'S WELDING PROGRAM AT  
WATTS BAR

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ACTION OFFICE: EDO

AUTHOR: J.D. Dingell  
AFFILIATION: U.S. HOUSE OF REPRESENTATIVES

LETTER DATE: Jul 8 86 FILE CODE:

SUBJECT: Ques for clarification re June 11, 1986 and June 25, 1986 hearing on TVA's nuclear program

ACTION: Signature of Chm & Comm Review

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SPECIAL HANDLING: None

NOTES:

DATE DUE: Jul 18 86

SIGNATURE: . DATE SIGNED:  
AFFILIATION:

Rec'd Off. EDO  
Date 7-11-86  
Time 1:30 p

The Honorable John D. Dingell, Chairman  
Subcommittee on Oversight and Investigations  
Committee on Energy and Commerce  
U. S. House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

This is in response to your letter dated July 8, 1986, requesting a Commission response to three questions related to TVA's welding program as implemented at the TVA Watts Bar site. As you are aware, welding is one of the few issues that were raised, in the very early stage, by the concerned TVA employees. Because of similar problems experienced at other construction sites; notably at Zimmer, Comanche <sup>Peak</sup> Park, and Wolf Creek, in December 1985 the NRC senior staff established ~~in December 1985~~ a special Task Group to coordinate and to manage the NRC activities, supported by a consultant panel. As a result, the NRC staff was well prepared to deal with this issue, and has generally been able to respond expeditiously to TVA's requests for providing guidance and criteria for resolving concerns and for ascertaining the quality of welds at Watts Bar plant.

After reviewing the relevant portion of the transcript of the June 11, 1986 Subcommittee hearing, the Commission agrees that there <sup>appears to be</sup> are discrepancies between information provided to the Subcommittee and that provided to the NRC staff in a meeting on June 25, 1986. <sup>For example</sup> Specifically, the NRC staff was told that the DOE/EG&G contract did not cover QA/QC aspects related to welding. <sup>or Appendix B Compliance</sup> The Commission further believes that "suitable-for-service" is not entirely equivalent to the licensing commitment to meeting specific industry codes and standards, unless any deviations from these standards are documented, evaluated, and approved by the NRC staff.

weld  
BC inspectors training  
and qualification,  
and inspectors  
then  
Carburizing  
primer.  
fit-up inspectors,  
(e.g.)

Following are answers to your specific questions:

Q.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?

Ans. The NRC staff has not taken an overall position regarding whether TVA's welding program has been in compliance with the TVA's licensing commitments. However, there is evidence on record to indicate that, ~~in some isolated instances, the program may not have been implemented in accordance with the commitments;~~ The fact that TVA has proposed the "suitable-for-service" criterion for acceptance of welded components

*Some significant respect*  
*appears to*  
*indicate their own conclusion on this point.*  
*that they are not able to demonstrate the full compliance with TVA's licensing commitments.*

Q.2. Has the TVA informed the NRC that the TVA's welding program at Watts Bar has been implemented in accordance with TVA's licensing commitments?

Ans. No. On the contrary, TVA's representative Mr. Lawrence Martin stated in the June 25 meeting that "... we are not certifying right now in the welding task group or asking anyone else to certify that we met our commitments," ~~and "and that is that, why we are not"~~

Q.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?

- 3 -

Ans. It is difficult for the Commission to judge whether Mr. White's and Mr. Kelly's statements on pages 211-215 of the transcript are accurate and complete, because the NRC staff has not received the details of EG&G's reinspection program. However, there are several inconsistencies between these statements and information available to the NRC staff. For example, the NRC staff was told that the initial scope covers roughly 22,000 welds (instead of 7,000 welds) in 1,500 components. EG&G's contract does not cover QA/QC aspects of welding or the determination of Appendix B compliance, and the use of a "suitable-for-service" criterion as meeting licensing commitments.

*believe I*  
I ~~hope~~ the above answers adequately respond to your questions. If the Commission can be of further assistance, please do not hesitate to let me know.

Sincerely,

Lando W. Zech, Jr.

cc: Rep. James T. Broyhill

Ans. It is difficult for the Commission to judge whether Mr. White's and Mr. Kelly's statements on pages 211-215 of the transcript are accurate and complete, because the NRC staff has not received the details of EG&G's reinspection program. However, there are several inconsistencies between these statements and information available to the NRC staff. For example, the NRC staff was told that the initial scope ~~will~~ covers roughly 22,000 welds (instead of 7000 welds) in 1500 components. EG&G's contract does not cover QA/QC aspects of welding or the determination of Appendix B compliance and the use of "suitable-for-service" criterion as meeting licensing commitments.

I hope the above answers adequately respond to your questions. If the Commission can be of further assistance, please do not hesitate to let me know.

Sincerely,

Lando W. Zech, Jr.

cc: Rep. James T. Broyhill

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 R. Weissman

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NAME	: B.D. Liaw:ce	: T. Novak	: <u>H. Thompson</u>	: R.H. Vollmer	: H.R. Denton	: V. Stello	: L.W. Zech
DATE	: 7/ /86	: 7/ /86	: 7/ /86	: 7/ /86	: 7/ /86	: 7/ /86	: 7/ /86

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Acting Dir.



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 WASHINGTON, D. C. 20555

The Honorable John D. Dingell, Chairman  
 Subcommittee on Oversight and Investigations  
 Committee on Energy and Commerce  
 U. S. House of Representatives  
 Washington, D.C. 20515

Dear Mr. Chairman:

This is in response to your letter dated July 8, 1986, requesting a response to three questions related to TVA's welding program as implemented at the Watts Bar site.

As you are aware, the Commission provided the Subcommittee with answers to a number of questions regarding TVA welding activities on April 21, 1986. Welding is one of the original issues that was raised by concerned TVA employees in early 1985. Because of similar problems experienced at other construction sites; notably at Zimmer, Comanche Peak, and Wolf Creek, in December 1985 the NRC senior staff established a special Task Group, supported by a consultant panel, to coordinate and to manage NRC activities regarding the TVA welding program. As a result, the NRC staff has generally been able to respond expeditiously to TVA's requests for guidance and criteria for resolving concerns and for ascertaining the quality of welds at the Watts Bar plant.

A review of the relevant portion of the transcript of the June 11, 1986 Subcommittee hearing indicates there may be discrepancies between information provided to the Subcommittee and that provided to the NRC staff in a meeting on June 25, 1986. For example, on June 25, 1986, the NRC staff was told that the DOE/EG&G contract did not cover QA/QC aspects related to welding or Appendix B compliance. The Commission further believes that "suitable-for-service" is not equivalent to the licensing commitment to meeting specific industry codes and standards, unless any deviations from these standards are documented, evaluated, and approved by the NRC staff.

The following are answers to your specific questions:

Q.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?

Ans. The NRC staff has not taken an overall position regarding whether TVA's welding program has been in compliance with the TVA's licensing commitments. However, there is information on record to indicate that, in some significant respects, the program may not have been implemented in accordance with commitments; e.g., issues related to HVAC design and inspection, fit-up inspections, training and qualification of weld inspectors, and inspection through carbo-zinc primer. [The fact that TVA has proposed the "suitable-for-service" criterion for acceptance of welded components appears to indicate their own conclusion that they are not able to demonstrate full compliance with their licensing commitments.]

The Honorable John D. Dingell

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Q.2. Has the TVA informed the NRC that the TVA's welding program at Watts Bar has been implemented in accordance with TVA's licensing commitments?

Ans. No. TVA has not submitted any formal statement regarding compliance of the Watts Bar welding program with TVA initial licensing commitments. TVA's representative Mr. Lawrence Martin stated in the June 25 meeting (Page 37 of the transcript) that "... we are not certifying right now in the welding task group or asking anyone else to certify that we met our commitments." It should be noted that TVA certified Watts Bar Unit 1 as being ready to load fuel on February 20, 1985; however, this was rescinded by Mr. White in a letter dated April 11, 1986.

Q.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?

Ans. It is difficult for the Commission to judge whether Mr. White's and Mr. Kelly's statements on pages 211-215 of the transcript are accurate and complete. Although we received the welding project management plan on May 23, 1986, the NRC staff has not received the details of EG&G's reinspection program. However, there are several inconsistencies between the statements in the transcript and information available to the NRC staff, such as the number of welds being reviewed by EG&G, and the conformance of the TVA weld program to the requirements of Appendix B. On June 11, 1986, Mr. White and Mr. Kelly stated EG&G has looked at approximately 7,000 welds, the staff was told on June 25 that the initial scope covers roughly 15,000-16,000 welds in 1,600-1,700 components. The staff is presently uncertain as to the basis for statements made to the Subcommittee regarding compliance with Appendix B as the staff was told EG&G was not reviewing QA/QC aspects of welding or TVA's compliance with Appendix B.

As stated earlier, the "suitable-for-service" criterion mentioned by Mr. Kelly and Mr. White does not meet the original licensing commitment.

TVA's contractor is continuing to review the TVA weld program and reinspect welds at Watts Bar to determine adherence to licensing commitments. While the staff considers the logic of the overall program for addressing these issues to be basically sound, the docketed program is deficient in that it contains insufficient detailed information to permit an adequate technical review. Some of the key information needed includes sample size and acceptance criteria, applicability of portions of the ASME Code, certain QA aspects related to welding, and detailed project procedures. A request for the submittal of additional information from TVA is being prepared by the staff. The Commission staff is monitoring and will review TVA's program implementation and final report(s), and will make a finding whether TVA complies with its commitments and whether the welds are "suitable-for-service."

The Honorable John D. Dingell

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I believe the above answers adequately respond to your questions. If the Commission can be of further assistance, please do not hesitate to let me know.

Sincerely,

Lando W. Zech, Jr.  
Chairman

cc: Rep. James T. Broyhill



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 WASHINGTON, D.C. 20555

OFFICE OF THE  
 CHAIRMAN

The Honorable John D. Dingell  
 Chairman, Subcommittee on Oversight  
 and Investigations  
 Committee on Energy and Commerce  
 U.S. House of Representatives  
 Washington, D.C. 20515

Dear Mr. Chairman:

I am responding to your letter of July 8, 1986 to me. In that letter, you requested a response to three questions related to the Tennessee Valley Authority's (TVA) welding program as implemented at the TVA Watts Bar site.

As you are aware, on April 21, 1986, the Commission provided the Subcommittee with answers to a number of questions regarding TVA's welding activities. Welding adequacy is one of the early issues that was raised by concerned TVA employees. Because of similar problems experienced at other construction sites (notably at Zimmer, Comanche Peak, and Wolf Creek), the NRC senior staff established a special Task Group, supported by a consultant panel, to coordinate and to manage NRC activities regarding the TVA welding program. As a result, the staff has generally been able to respond expeditiously to TVA's requests for guidance and criteria for resolving concerns and for ascertaining the quality of welds at the Watts Bar plant. TVA's

At present, TVA's contractor (U.S. Department of Energy (DOE)/EG&G) is reviewing the TVA welding program and reinspecting welds at Watts Bar to determine adherence to licensing commitments. While the staff considers the logic of the overall program for addressing these issues to be basically sound, the docketed program is deficient in that it contains insufficient detailed information to permit an adequate technical review. Some of the key information needed includes sample size and acceptance criteria, applicability of portions of the ASME Code, certain QA aspects related to welding, and detailed project procedures. These concerns were discussed with TVA at a public meeting on June 25, 1986 and a request for the submittal of additional information from TVA is being prepared by the staff. As stated in our April 21, 1986 letter to the Subcommittee, the staff is monitoring and will review TVA's welding program implementation and final report(s), and will make a finding whether TVA complies with its licensing commitments, and if not, whether the welds are "suitable-for-service."

With regard to the term, "suitable-for-service," the staff does not accept this as equivalent to a licensing commitment to meet specific industry codes and standards unless specifically provided for in the individual codes. Such deviations from these standards, and the licensee's evaluation, must be documented and approved by the staff.

The Honorable John D. Dingell

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The answers to your specific questions are provided in the enclosure to this letter. If the Commission can be of further assistance, please do not hesitate to let me know.

Sincerely,

Lando W. Zech, Jr.  
Chairman

Enclosure:  
Response to July 8, 1986  
Questions of Congressman Dingell

cc w/encl: James T. Broyhill

## ENCLOSURE

## RESPONSE TO JULY 8, 1986 QUESTIONS OF CONGRESSMAN DINGELL

Question 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?

Answer

The staff has not taken an overall position regarding whether TVA's welding program has been in compliance with the TVA's licensing commitments. However, there is information on record to indicate that, in some significant respects, the program may not have been implemented in accordance with commitments; e.g., issues related to the heating, ventilation and air conditioning (HVAC) design and inspection, fit-up inspections, training and qualification of welding inspectors, and inspection through carbo-zinc primer.

Question 2

Has the TVA informed the NRC that the TVA's welding program at Watts Bar has been implemented in accordance with TVA's licensing commitments?

Answer

No. TVA has not submitted any formal statement regarding compliance of the Watts Bar welding program with TVA's initial licensing commitments. TVA's representative, Mr. Lawrence Martin, stated in the June 25, 1986 meeting (Page 37 of the transcript) that, "...we are not certifying right now in the welding task group or asking anyone else to certify that we met our commitments." It should be noted that TVA certified Watts Bar Unit 1 as being ready to load fuel on February 20, 1985; however, this was rescinded by Mr. White in a letter dated April 11, 1986.

Question 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?

Answer

It is difficult to judge whether Mr. White's and Mr. Kelly's statements on Pages 211-215 of the transcript are accurate and complete because the staff's review of the DOE/EG&G weld quality evaluation program is still ongoing. The staff received TVA's welding Project Management Plan on May 23, 1986 and met with TVA officials to discuss this plan on June 25, 1986.

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The staff is presently uncertain regarding the overall TVA weld program's complete compliance with Appendix B, as the staff was told on June 25, 1986 that DOE/EG&G was not reviewing QA/QC aspects of welding nor TVA's compliance with Appendix B, but that a TVA Employee Concern Task Group has that responsibility. In their response to Chairman Dingell's question on June 11, 1986, the staff presumes Mr. White and Mr. Kelly were referring to the DOE/EG&G review of the written or procedural aspects of the TVA welding program when they stated the program was in compliance with Appendix B. During the June 25, 1986 meeting, DOE/EG&G stated they had identified "no document program deficiency to date." To our knowledge, DOE/EG&G has not identified to TVA any deviations to the requirements of Appendix B. It is also our understanding that the scope of the DOE/EG&G review was limited to certain codes and standards (which assure, in part, Appendix B requirements are met) but they did not review TVA conformance to other Appendix B standards, such as the ANSI N45-series.

Regarding the number of welds being inspected, on June 11, 1986, Mr. White and Mr. Kelly stated that DOE/EG&G is looking at approximately 7,000 welds. The staff was told on June 25, 1986 that the initial scope covers roughly 15,000-16,000 welds in 1,600-1,700 components. With regard to program completion, on June 11, 1986, Mr. White stated that the DOE/EG&G review of the procedural aspects of TVA welding program was literally 99.9% complete. The staff was told on June 25, 1986 that this review was about 90% complete.

Furthermore, as stated in the body of this letter, the "suitable-for-service" criterion mentioned by Mr. Kelly does not necessarily meet the original licensing commitment.