



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

AUG 23 2000

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of) Docket No. 50-390
Tennessee Valley Authority)

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 - DEPARTMENT OF LABOR (DOL)
ADMINISTRATIVE LAW JUDGE (ALJ) CASE NO 97-ERA-53 (CURTIS C.
OVERALL V. TENNESSEE VALLEY AUTHORITY)

In letters to J. A. Scalice dated July 17, 1998, and September 4, 1998, NRC requested that TVA provide copies of future filings made to DOL by TVA in the Curtis C. Overall case. TVA committed to that requested action in a letter dated August 7, 1998. Accordingly, enclosed is TVA's most recent filing. The enclosed filing is entitled, "Respondent's Motion to Supplement the Record."

If you have any questions concerning this latest filing, please telephone me at (423) 365-1824.

Sincerely,

P. L. Pace
Manager, Site Licensing
and Industry Affairs

Enclosure
cc: See page 2

D030

U.S. Nuclear Regulatory Commission

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cc (Enclosure):

NRC Resident Inspector
Watts Bar Nuclear Plant
1260 Nuclear Plant Road
Spring City, Tennessee 37381

Mr. Robert E. Martin, Senior Project Manager
U.S. Nuclear Regulatory Commission
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Rockville, Maryland 20852

Mr. Luis A. Reyes
U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
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Atlanta, Georgia 30303

Mr. R. W. Borchardt, Director
Office of Enforcement
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

ENCLOSURE
ADMINISTRATIVE REVIEW BOARD (ARB) BRIEF
ARB CASE NOS. 98-111 AND 98-128
(ADMINISTRATIVE LAW JUDGE (ALJ) CASE NO. 97-ERA-53)

RESPONDENT'S MOTION TO SUPPLEMENT THE RECORD

BEFORE THE ADMINISTRATIVE REVIEW BOARD
UNITED STATES OF AMERICA
DEPARTMENT OF LABOR

IN THE MATTER OF)	
)	
CURTIS C. OVERALL)	
)	
Complainant)	
)	
v.)	ARB Case Nos. 98-111 and
)	98-128
TENNESSEE VALLEY AUTHORITY)	(ALJ Case No. 97-ERA-53)
)	
Respondent)	

RESPONDENT'S MOTION TO SUPPLEMENT THE RECORD

This case is pending on the parties' cross-petitions for review. Respondent Tennessee Valley Authority (TVA) is challenging the April 1, 1998, recommended decision and order (RDO) issued by the Administrative Law Judge (ALJ) which ruled that TVA had discriminated against complainant due to his raising a nuclear safety issue at TVA's Watts Bar Nuclear Plant (Watts Bar). Complainant is seeking review of the ALJ's determination on attorneys' fees and costs.

Pursuant to 29 C.F.R. § 18.54(c) (1999), TVA moves to supplement the record with proposed respondent's exhibit 20, a January 31, 2000, letter from Charles A. Casto, Director, Division of Reactor Safety, Nuclear Regulatory Commission (NRC), Region II, to J. A. Scalice, TVA's Chief Nuclear Officer, and

proposed respondent's exhibit 21, a July 17, 2000, letter from Luis A. Reyes, Regional Administrator, NRC Region II, to Mr. Scalice. Copies of these proposed exhibits are tendered with this motion. The grounds for the motion are set out below.

As the record reflects, this case is based on complainant's involvement in a concern about the sheet metal screws used in the ice baskets in the ice condenser system at Watts Bar. The issue was formally identified in a TVA Problem Evaluation Report (PER) in April 1995, a document referred to by the parties and the ALJ as PER 246. As part of the effort to understand the issue in PER 246, TVA's Central Laboratory Services (Central Labs), an organization independent of and in a separate organization from Watts Bar and TVA Nuclear in general, was asked to provide a report on the metallurgical properties of the ice basket screws (JX9 § 19; tr. 470-71, 500, 505).

Central Labs issued its initial report on June 2, 1995 (CX22; RDO at 9). That initial report was withdrawn and a revised report was issued on June 19, 1995 (CX23 at 26-47; tr. 471-75, 484-86, 495-96, 500-01, 509, 511-12, 521-24, 537, 540-47). The revised report contained somewhat different text than the initial report and included somewhat different information. It was made part of PER 246 (CX23 at 26-47).

The ALJ made much of the revision of the Central Labs report and the inclusion of the revised metallurgical report in PER 246 (RDO at 11-12, 24). He went so far as to find as follows:

15. On June 19, 1995, Central Labs issued a revised report omitting references to any cause of screw failure so as to avoid reporting such an issue to the NRC or having the NRC discover the screw defect prior to issuing an operating license [RDO at 24].

The proposed exhibits tendered with this motion show that this finding is incorrect. As shown in the proposed exhibits, NRC has been pursuing its own investigation into the differences between the June 2, 1995, Central Labs report (CX22) and the June 19, 1995, Central Labs report (CX23 at 26-47), with emphasis on whether TVA properly pursued the apparent question about defective ice basket screws raised in the June 2, 1995, Central Labs report. See proposed RX20 at 1 and proposed RX21 at 2.

NRC initially scheduled a predecisional enforcement conference as a result of their investigation (proposed RX20). NRC identified two apparent violations arising from PER 246, describing the one involving the ice basket screws as follows:

[A] condition adverse to quality was identified and documented in a June 2, 1995 [Central Labs] report regarding defective new ice condenser ice basket screws; however TVA did not pursue this issue in a timely manner [proposed RX20 at 1].

As is clear from enclosure 1 to NRC's January 31, 2000, letter (proposed RX20 at 5), the NRC's Office of Investigations (OI) had originally concluded that Central Labs had removed

information about defects in new ice basket screws from the June 2, 1995, report (CX22) when it issued the revised report on June 19, 1995 (CX23 at 26-47). The ALJ made a similar finding, albeit with more sinister overtones.

However, as it turns out, both the ALJ and NRC OI were wrong. Enclosure 2 to NRC's July 17, 2000, letter (proposed RX21) summarizes OI's additional finding that the reference to a new ice basket screw in the June 2, 1995, Central Labs report (CX22) was in error since the screw referenced as a new screw from the warehouse was not a new screw but instead was a whole, unbroken screw obtained from the ice melt tank (proposed RX21 at 9-10). NRC also determined that the screw was properly described in the June 19, 1995, Central Labs report (CX23 at 26-47) and that the defect in the screw (a crack) was shown in a photomicrograph in that report (CX23 at 37; see also CX22 at 12). Based on these findings, NRC made the following statement:

In particular, the NRC **no longer concludes** that [TVA] willfully chose not to properly evaluate defective new ice condenser ice basket screws from the [Watts Bar] warehouse. NRC investigation and inspection confirmed that **no defective new warehouse ice condenser ice basket screws existed** (as mistakenly documented in the June 2, 1995 metallurgical report) [proposed RX21 at 10].¹

¹ Emphasis added unless otherwise noted.

NRC still issued a notice of violation, but as a non-cited Severity Level IV violation, the lowest category of NRC violation (proposed RX21 at 2). NRC described the violation as follows:

Specifically, a condition adverse to quality, a crack in an ice condenser screw, was identified and documented in a June 2, 1995 [Central Labs] report, **and in a second [Central Labs] report of June 19, 1995.** However, TVA did not pursue this issue in a timely manner. The NRC has concluded that this violation **was not willful**, but rather was more likely the result of a combination of factors, including mis-communication between TVA organizations, poor record keeping, and inattention to detail. **Based on the low safety significance** and in accordance with the [NRC] Enforcement Policy, this issue has been categorized at Severity IV [proposed RX21 at 2].

Accordingly, NRC, which is the agency responsible for determinations about nuclear safety as recognized by the NRC-Department of Labor Memorandum of Understanding, has undercut one of the ALJ's key findings. The second Central Labs report, issued June 19, 1995, was not issued to hide any issue about the ice basket screws from NRC. The only issue from the Central Labs reports—one described as having "low safety significance" by NRC—had to do with a crack in a screw recovered from the ice melt tank. Since much of the ALJ's characterization of TVA's motives in this case can be traced to his now unfounded suspicions about the second Central Labs report, the new evidence tendered in the proposed exhibits should have a substantial impact on the outcome of this case.

The tendered new exhibits were certainly not available prior to the closing of the record before the ALJ since NRC has only concluded its investigation within the last few weeks. As shown on the face of the proposed exhibits, they are public documents generated by NRC which are clearly relevant to this case.

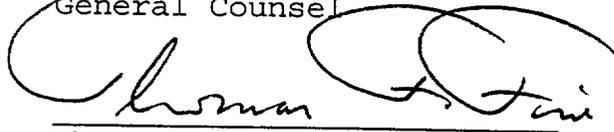
Nor can complainant object to this motion since he has asked the ARB to consider similar documents on the Watts Bar ice basket screws. His first motion to supplement the record, filed August 26, 1998, asked the ARB to consider other NRC documents dealing with the handling of PER 246. In addition, his second motion to supplement the record sought to add documents related to further issues about the ice basket screws at Watts Bar. Since complainant has argued to this tribunal that those documents were relevant to this case and fell within the ambit of

29 C.F.R. § 18.54(c), he should have no problem allowing this tribunal to consider the proposed exhibits tendered here.

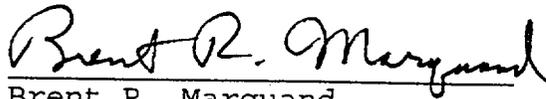
Under these circumstances, TVA's motion should be granted.

Respectfully submitted,

Edward S. Christenbury
General Counsel



Thomas F. Fine
Assistant General Counsel



Brent R. Marquand
Senior Litigation Attorney

Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville, Tennessee 37902-1401
Telephone No. 865-632-2061

Attorneys for Respondent

003678508

CERTIFICATE OF SERVICE

I hereby certify that the foregoing motion to supplement the record has been served on complainant by mailing a copy to Lynne Bernabei, Esq., Bernabei & Katz, PLLC, 1773 T Street, NW, Washington, D.C. 20009-7139; on the Chief Administrative Law Judge by mailing a copy to The Honorable John Vittone, Office of Administrative Law Judges, United States Department of Labor, Suite 400 North, 800 K Street, Washington, D.C. 20001-8002; on the Assistant Secretary, Occupational Safety and Health Division, by mailing a copy to Charles N. Jeffress, United States Department of Labor, 200 Constitution Avenue, NW, Room S2315, Washington, D.C. 20210; and on the Associate Solicitor, Division of Fair Labor Standards, by mailing a copy to Steven J. Mandel, Esq., United States Department of Labor, 200 Constitution Avenue, NW, Room N2716, Washington, D.C. 20210.

This 10th day of August, 2000.



Attorney for Respondent



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

January 31, 2000

EA 99-115

Tennessee Valley Authority
ATTN: Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President

6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: CONFIRMATION OF PREDECISIONAL ENFORCEMENT CONFERENCE
ARRANGEMENTS (NRC OFFICE OF INVESTIGATIONS REPORT
NO. 2-98-023 AND NRC INSPECTION REPORT NOS. 50-390, 391/99-06)

Dear Mr. Scalice:

This is in reference to an investigation conducted by the Nuclear Regulatory Commission's (NRC) Office of Investigations (OI), initiated on November 4, 1998, and NRC inspections conducted at the Watts Bar facility during the period February 22 through May 3, 1999. The inspection results were documented in NRC Inspection Report Nos. 50-390, 391/99-06. Two Unresolved Items, 50-390, 391/99-06-05 and 06, were also identified in the report. The purpose of the OI investigation was to determine whether Tennessee Valley Authority (TVA) withheld or assisted in concealing information regarding defective ice condenser screws from 1995 to 1998. A summary of the OI investigation is included as Enclosure 1

Based on the results of the inspection and OI investigation, two apparent violations were identified that are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. The apparent violations are listed in Enclosure 2 of this letter, and were discussed with Mr. Mark Burzynski and Mr. Paul Pace of your staff on January 21, 2000. The first issue involved an apparent violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, in that a condition adverse to quality was not promptly identified and corrected. Specifically, a condition adverse to quality was identified and documented in a June 2, 1995 Central Laboratory and Field Testing Services (CLS) report regarding defective new ice condenser ice basket screws; however, TVA did not pursue this issue in a timely manner. The second issue involved an apparent violation of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures and Drawings, and TVA procedures, in that TVA did not request Westinghouse to evaluate the data collected from the metallurgical testing and evaluation performed by CLS, as documented in Part C11, Step 3 of Problem Evaluation Report (PER) WBPER950246.

The evidence appeared to indicate that both apparent violations were willful. The facts supporting this conclusion may be derived from Enclosures 1 and 2. No Notice of Violation is presently being issued for these findings; however, please be advised that the number and

characterization of the apparent violations described in Enclosure 2 may change as a result of further NRC review.

A closed, predecisional enforcement conference to discuss these apparent violations will be scheduled with you in the near future. The conference will be conducted at NRC's Region II Office located at 61 Forsyth Street, S.W., Suite 23T85, Atlanta, Georgia 30303, will be closed to public observation in accordance with the Commission's program as discussed in the Enforcement Policy, and will be transcribed. The decision to hold a predecisional enforcement conference does not mean that the NRC has determined that violations have occurred or that enforcement action will be taken. This conference is being held to obtain information to enable the NRC to make an enforcement decision, such as a common understanding of the facts, root causes, missed opportunities to identify the apparent violations sooner, corrective actions, significance of the issues, and the need for lasting and effective corrective action. In addition, this is an opportunity for you to point out any errors in our investigation or inspection findings and for you to provide any information concerning your perspectives on: 1) the severity of the apparent violations, 2) the application of the factors that the NRC considers when it determines the amount of a civil penalty that may be assessed in accordance with Section VI.B.2 of the Enforcement Policy, and 3) any other application of the Enforcement Policy to this case, including the exercise of discretion in accordance with Section VII. In presenting your corrective actions, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violations.

The NRC recognizes that the technical issue involving the integrity of new ice condenser ice basket screws has been re-evaluated and resolved by TVA. Specifically, TVA conducted subsequent metallurgical analysis and testing of the new screws in October 1998, and additional testing and analyses was conducted and observed by the NRC in 1999. Based on this, TVA concluded that, although some cracking defects were identified, these defects would not compromise the ability of the new screws to perform their intended function. The NRC has reviewed the results of TVA's re-evaluation and testing, and has no current operability issues with respect to the ice condenser ice basket screws at the Watts Bar Nuclear Plant. Therefore, your presentation at the closed, predecisional enforcement conference should address only those aspects of the issue as discussed in Enclosures 1 and 2. In addition, as discussed with Mr. Mark Burzynski and Mr. Ed Viglucci of your staff, the NRC specifically requests the presence of three individuals who held the following positions at the time of the events discussed in Enclosure 1: the CLS Metallurgical Laboratory Supervisor, the WBN Lead Civil Engineer, and TVA's Chief Metallurgist and Codes Engineer, Nuclear. The presence of these individuals at the conference will assist the NRC in fully understanding all relevant facts.

You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding these apparent violations is required at this time.

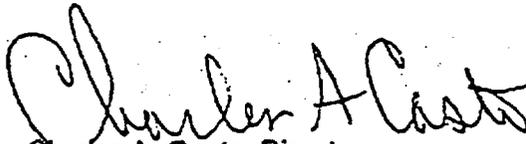
In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

Tennessee Valley Authority

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Should you have any questions concerning this letter, please contact me at (404) 562-4600.

Sincerely,



Charles A. Casto, Director
Division of Reactor Safety

Docket Nos. 50-390, 50-391
License No. NPF-90 and Construction
Permit No. CPPR-92

Enclosures: 1. Summary of OI Report No. 2-98-023
2. Apparent Violations

cc w/encls: (see page 4)

Tennessee Valley Authority

4

cc w/ encls.:

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Senior Vice President
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SUMMARY OF OFFICE OF INVESTIGATIONS REPORT 2-98-023

The Nuclear Regulatory Commission's (NRC) Office of Investigations (OI) Report No. 2-98-023 involved an investigation to determine whether Tennessee Valley Authority (TVA) willfully withheld or assisted in concealing information regarding the condition of new ice condenser ice basket sheet metal screws at the Watts Bar Nuclear Plant (WBN) from 1995 to 1998.

WBN Problem Evaluation Report (PER) WBP950246 was initiated on April 19, 1995, to document that ice condenser ice basket sheet metal screws were found in the ice melt tank after ice loading of the Unit 1 ice condenser. As part of the PER WBP950246 corrective action plan to determine the cause, significance, and resolution of this issue, WBN requested Central Laboratory and Field Testing Services (CLS) to conduct a metallurgical analysis of various screws, including screws found in the ice melt tank, and new screws obtained from the WBN warehouse. Another corrective action, as identified in Part C11, Step 3 of PER WBP950246, included an action for WBN's Nuclear Engineering Department to request that Westinghouse evaluate the data collected from the metallurgical testing and evaluation performed by the CLS.

The results of the CLS metallurgical analysis were documented in Report 95-1021, approved by the CLS Metallurgical Laboratory Supervisor, and issued on June 2, 1995. The report included a list of seven factors which, according to CLS, were the probable cause of the failed screws. One of these seven factors (conclusion #6) related to the presence of quench cracks in new screws received from the manufacturer, indicating that the crack originated during the fabrication process. The text of the report also discussed the identification of zinc in the new screws based on chemical composition analysis, indicating that the crack may have been present prior to plating (possibly formed when quenched during the manufacturer's heat treatment). In addition, the June 2, 1995 report included a figure (Figure #7) that depicted a crack in a new screw. At the request of WBN, CLS provided a letter to clarify which new and used screw sets tested by CLS contained cracks. This letter was signed by the CLS Metallurgical Laboratory Supervisor, entered into TVA's Records Information Management System (RIMS) on June 12, 1995, and distributed to a WBN metallurgical engineer who had knowledge of the screw issue.

Based on his review of the June 2, 1995 report, the WBN Lead Civil Engineer requested that TVA's Chief Metallurgist and Codes Engineer, Nuclear, discuss the conclusions and related information contained in the report with CLS. The necessity for these discussions arose as a result of the WBN Lead Civil Engineer's belief that certain information and conclusions contained in the June 2, 1995 report could not be adequately supported by the CLS laboratory observations. Based on this request, a meeting was held with various representatives of CLS, WBN, and TVA's Chief Metallurgist and Codes Engineer, Nuclear. This meeting resulted in issuance of a second Report 95-1021 on June 19, 1995 by CLS. The report was also approved by the CLS Metallurgical Laboratory Supervisor, with no revision number. The June 19, 1995 report deleted or revised various information contained in the June 2, 1995 report. Information material to the NRC's OI investigation that had been removed included conclusion #6 from the list of seven factors which probably caused the screws to fail (in fact, all seven conclusions were removed), references to cracks formed in new screws during the manufacturer's heat treatment, and Figure #7 depicting a crack in a new screw. The intent of CLS's issuance of the

Enclosure 1

June 19, 1995 report was to replace the June 2, 1995 report in its entirety, and attempts were made by CLS and WBN to retrieve all copies of the June 2, 1995 report. However, CLS did not adhere to internal CLS procedures for report revisions and cataloguing documents into RIMS.

WBN subsequently closed PER WBPER950246 as evidenced by the signatures of various WBN reviewers and managers on July 28, 1995, including the signature of the WBN Lead Civil Engineer. In this case, closure of the PER on July 28, 1995, indicated that all steps of the corrective action plan were completed. However, the licensee did not complete Step 3 of PER WBPER950246 as written, in that TVA did not request Westinghouse to evaluate the data collected from the metallurgical testing and evaluation performed by CLS as documented in the June 2, 1995 CLS report, nor was Westinghouse requested to evaluate the June 19, 1995 CLS report. In lieu of completing Step 3 of PER WBPER950246, the licensee used the results of a Westinghouse analysis of broken screws, completed on June 22, 1995. The Westinghouse analysis included an evaluation of the probability and distribution of failed screws (a statistical evaluation), and a discussion of functional aspects for various ice condenser components, to conclude that the ice condenser could be considered operable even with the missing screws. The Westinghouse evaluation, however, did not address the metallurgical aspects of the broken screws, screws currently in use, or new screws.

In 1997, the CLS Metallurgical Laboratory Supervisor, at the request of CLS Quality Assurance organization, prepared a comparison of the June 2 and June 19, 1995, metallurgical analysis reports, to identify all content differences. This comparison, however, did not identify that the June 19, 1995 report removed a reference to cracks formed during the manufacturer's heat treatment (i.e., conclusion #6), nor did it identify the removal of Figure #7 from the June 2, 1995 report.

On September 3, 1998, the CLS Metallurgical Laboratory Supervisor documented in a letter to the TVA Chief Metallurgist and Codes Engineer, Nuclear, an explanation regarding the removal of Figure #7 from the June 2, 1995 CLS report. This letter was provided to support an effort by the TVA Chief Metallurgist and Codes Engineer, Nuclear, to conduct a reconciliation of the two metallurgical analysis reports, at the request of WBN. The September 3, 1998 letter from the CLS Metallurgical Laboratory Supervisor only addressed the omission of Figure #7, and did not address removal of other information related to cracks formed during the manufacturer's heat treatment.

The reconciliation report was issued by the TVA Chief Metallurgist and Codes Engineer, Nuclear, on October 20, 1998, and identified deletion of the conclusion section containing the seven conclusions of probable screw failure, identified the removal of information regarding cracks found in a new screw, as well as other differences between the June 2 and June 19, 1995 CLS reports. The reconciliation report stated that information regarding pre-existing cracks in new screws may have suggested that a fabrication or manufacturing process deficiency existed that could result in the screws not meeting minimum required properties for the intended application. The TVA Chief Metallurgist and Codes Engineer, Nuclear, concluded that this information should have been considered an important finding by the CLS staff, and should have been included in the June 19, 1995 report, as this information could affect

Enclosure 1

APPARENT VIOLATIONS

The following is a summary of the apparent violations that were identified as a result of NRC Office of Investigations Report No. 2-98-023:

1. 10 CFR 50 Appendix B, Criterion XVI, Corrective Action, and TVA Nuclear Quality Assurance Plan TVA-NQA-PLN89-A, Rev. 8, Section 10.0, collectively require that measures be established to ensure that conditions adverse to quality are promptly identified and corrected.

As of approximately July 28, 1995, the licensee willfully failed to promptly identify and correct a condition adverse to quality. Specifically, a condition adverse to quality was identified and documented in the June 2, 1995, Central Laboratory and Field Testing Services (CLS) report regarding defective new ice condenser ice basket screws. However, the licensee did not pursue this issue in a timely manner in that actions were not initiated to fully evaluate the condition until approximately October 1998.

The evidence indicated that the licensee willfully violated this requirement. Specifically, the licensee was knowledgeable of the condition adverse to quality documented in the June 2, 1995 CLS report, knew or should have known that this information was required to be evaluated in accordance with 10 CFR 50, Appendix B, Criterion XVI, and through action or inaction, chose to not properly evaluate this information in a timely manner as required (Unresolved item 50-390/99-06-05).

2. 10 CFR Part 50 Appendix B, Criterion V, Instructions, Procedures and Drawings, and TVA Nuclear Quality Assurance Plan TVA-NQA-PLN89-A, Rev. 8, Section 6.0, collectively require that activities affecting quality shall be accomplished by approved procedures.

SSP 3.06 "Problem Evaluation Reports", Rev. 16, Section 2.4a, and SSP 3.04 "Corrective Action Program", Rev. 14, Section 2.5a, require the licensee to implement and/or monitor implementation of the approved corrective action plan.

As of approximately July 28, 1995, the licensee willfully failed to follow procedure SSP-3.06 and SSP 3.04, in that TVA Nuclear Engineering did not request Westinghouse to evaluate the data collected from the metallurgical testing and evaluation performed by CLS, as documented in Part C11, Step 3 of PER WBPER950246. Specifically, WBPER950246 Part C11 was signed as being completed, when in fact Nuclear Engineering had not requested Westinghouse to review the metallurgical test results.

The evidence indicated that the licensee willfully violated this requirement because individuals who were responsible for closure of PER WBPER950246, knew, or should have known, that Westinghouse was not requested to evaluate the data collected from the metallurgical testing and evaluation performed by CLS, but nonetheless documented Part C11, Step 3 of PER WBPER950246 as completed (Unresolved item 50-390/99-06-06).

Enclosure 2

corrective actions to address this issue. The October 1998 reconciliation report also concluded that omission of the information pertaining to cracking in the new screws and Figure #7 in the June 19, 1995 CLS report was inadvertent, although, as stated above, the September 3, 1998 letter from the CLS Metallurgical Laboratory Supervisor does not provide an explanation to address the removal of information pertaining to cracking in new screws.

Enclosure 1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T86
ATLANTA, GEORGIA 30303-8931

July 17, 2000

EA-99-115

Tennessee Valley Authority
ATTN: Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: NOTICE OF VIOLATION (NRC OFFICE OF INVESTIGATIONS
REPORT NOS. 2-98-023 AND 2-98-023S, AND NRC INSPECTION
REPORT NOS. 50-390, 391/99-06)

Dear Mr. Scalice:

The purpose of this letter is to inform the Tennessee Valley Authority (TVA) of the completion of our review of two apparent violations involving an issue associated with the Watts Bar Nuclear facility's ice condenser ice basket screws. This issue was the subject of our letter to you dated January 31, 2000, as well as other correspondence.

As you recall, our letter of January 31, 2000, documented the NRC's conclusions regarding the significance of a crack found in an ice condenser ice basket screw in 1995, and whether TVA withheld or assisted in concealing information regarding defective ice condenser screws from 1995 to 1998. The NRC conclusions were based on the results of NRC Office of Investigations (OI) Report No. 2-98-023 and NRC Inspection Report Nos. 50-390, 391/99-06. The NRC's January 31st letter informed TVA that based on the inspection and OI investigation results, two apparent violations (described below) were identified and were being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. The NRC also concluded that, based on the evidence, the two apparent violations were willful. Our letter also noted that the technical issue involving the integrity of ice basket screws had been re-evaluated and resolved by TVA, and no current ice condenser operability issues existed regarding ice basket screws at Watts Bar.

In accordance with the Enforcement Policy, we advised TVA of our intent to hold a closed, predecisional enforcement conference to discuss these issues on April 14, 2000. Based on receipt of new, additional information (Enclosure 3) on March 27, 2000, we postponed the conference so that a complete review of this information could be conducted. The NRC's review consisted of additional inspection effort and a supplemental OI investigation. We have reviewed the information and have concluded that sufficient information is now available to determine the appropriate enforcement action in this matter without the conduct of a predecisional enforcement conference.

The NRC has determined that two violations of regulatory requirements occurred. The first violation involved a non-compliance with 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, in that a condition adverse to quality was not promptly identified and corrected. Specifically, a condition adverse to quality, a crack in an ice condenser screw, was identified and documented in a June 2, 1995 Central Laboratory and Field Testing Services (CLS) report, and in a second CLS report of June 19, 1995. However, TVA did not pursue this issue in a timely manner. The NRC has concluded that this violation was not willful, but rather was more likely the result of a combination of factors, including mis-communication between TVA organizations, poor record keeping, and inattention to detail. Based on the low safety significance and in accordance with the Enforcement Policy, this issue has been categorized at Severity IV. In addition, the NRC has concluded that this violation should be characterized as a non-cited violation in accordance with Section VI.A.1 of the Enforcement Policy.

The second violation involved a non-compliance with 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures and Drawings, and TVA procedures, in that TVA did not request Westinghouse Electric Corporation to evaluate the data collected from the metallurgical testing and evaluation performed by CLS, as documented in Part C11, Step 3 of Problem Evaluation Report (PER) WBPER950246. The NRC has concluded that this violation was willful. Specifically, TVA closed PER WBPER950246 as evidenced by the signature of the lead civil engineer on July 28, 1995. However, at the time this individual signed the PER as completed, he knew, or should have known, that Step 3 of the PER was a part of the corrective action plan, and that this action had not been performed as stated in the PER. The NRC's evidence did not indicate that TVA's actions constituted an attempt to conceal information regarding defective ice condenser ice basket screws. The NRC also has concluded that timely completion of Step 3 of this PER may have precluded the violation of Appendix B, Criterion XVI, as described above.

The NRC has determined that the safety significance of the second violation is low, for several reasons. These include a Westinghouse statistical analysis of broken screws (completed on June 22, 1995) which appears to have been used by the lead civil engineer and others in lieu of completion of Step 3 of the PER, TVA's subsequent metallurgical re-analysis of the ice basket screws which determined that the screws were adequate, and subsequent NRC inspections which confirmed that this issue was not safety significant. Based on the technical significance, this violation could be considered minor. However, the willful aspects of this violation warrant a cited Notice of Violation (Notice) at Severity Level IV in accordance with Section VI.A.1 of the Enforcement Policy. No response to this Notice is required, as sufficient information has been documented in previous correspondence and in this letter to fully describe the issue and your corrective actions.

Enclosure 2 provides additional details and background information regarding the basis for the NRC's conclusions in this matter, including the NRC's evaluation of the additional information provided by TVA, subsequent NRC inspections, and a summary of the results of OI's supplemental investigation.

Enclosure 3 provides a copy of the correspondence transmitting the new information from Mr. Paul Pace of your staff, received by the NRC on March 27, 2000.

You are not required to respond to this letter unless these descriptions do not adequately reflect your corrective actions or your position. If you contest the violations as documented in this letter, you should provide a response within 30 days of the date of this letter, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, Region II, and the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and your response, if you chose to provide one, will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

If you have any questions regarding this letter, please contact Mr. Bruce S. Mallett, Deputy Regional Administrator, of my staff at 404-562-4411.

Sincerely,

/RA/

Luis A. Reyes
Regional Administrator

Docket Nos. 50-390, 50-391
License No. NPF-90 and Construction
Permit No. CPPR-92

Enclosures: 1. Notice of Violation
2. Summary of NRC Review
3. Additional Information provided
by TVA

cc w/encls: (see page 4)

Tennessee Valley Authority

4

cc w/ encls:
Karl W. Singer
Senior Vice President
Nuclear Operations
Tennessee Valley Authority
Electronic Mail Distribution

Jack A. Bailey, Vice President
Engineering and Technical Services
Tennessee Valley Authority
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William R. Lagergren
Site Vice President
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Robert J. Adney, General Manager
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Paul L. Pace, Manager
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Dayton, TN 37321-1300

County Executive
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Debra Shults, Manager
Technical Services
Division of Radiological Health
Electronic Mail Distribution

Richard L. Morley
Manager
Central Laboratory and Field
Testing Services
1101 Market Street, PSC 1B-C
Chattanooga, TN 37402

NOTICE OF VIOLATION

Tennessee Valley Authority

Docket Nos. 50-390

Watts Bar Nuclear Plant, Unit 1

License Nos. NPF-90
EA-99-115

During an NRC inspection conducted during the period February 22 through May 3, 1999, and NRC Office of Investigations (OI) investigations completed on November 19, 1999, and June 15, 2000, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

10 CFR Part 50 Appendix B, Criterion V, Instructions, Procedures and Drawings, and TVA Nuclear Quality Assurance Plan TVA-NQA-PLN89-A, Rev. 8, Section 6.0, collectively require that activities affecting quality shall be accomplished by approved procedures.

SSP 3.06 "Problem Evaluation Reports", Rev. 16, Section 2.4a, and SSP 3.04 "Corrective Action Program", Rev. 14, Section 2.5a, require the licensee to implement and/or monitor implementation of the approved corrective action plan.

The approved corrective action plan of WBP950246, Step 3 of Part C11, directed TVA's Nuclear Engineering to request Westinghouse to evaluate data collected from the metallurgical testing and evaluation performed by CLS.

Contrary to the above, as of approximately July 28, 1995, the licensee failed to follow procedure SSP-3.06 and SSP 3.04, in that TVA's Nuclear Engineering did not request Westinghouse to evaluate the data collected from the metallurgical testing and evaluation performed by CLS, as documented in Part C11, Step 3 of PER WBP950246. Specifically, WBP950246 Part C11 was signed as being completed, when in fact Nuclear Engineering had not requested Westinghouse to review the metallurgical test results.

This is a Severity Level IV violation. (Supplement I)

The NRC has concluded that information regarding the reasons for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the dates when full compliance was achieved are addressed on the docket in Inspection Report 50-390, 391/99-06, in the NRC's letter to TVA dated January 31, 2000, and in the letter transmitting this Notice of Violation (Notice). However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if these descriptions therein do not accurately reflect your corrective actions or your position. In that case, or if you chose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region II, within 30 days of the date of the letter transmitting this Notice.

NOV

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Enclosure 1

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response shall be submitted under oath or affirmation.

If you choose to respond, your response will be made publicly available. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 17th day of July 2000
Atlanta, Georgia

SUMMARY OF NRC REVIEW

NRC LETTER OF JANUARY 31, 2000:

The NRC's letter of January 31, 2000, advised TVA of its intent to conduct a closed, predecisional enforcement conference as a result of the findings associated with Office of Investigations (OI) Report No. 2-98-023 and NRC Inspection Report 50-390,391/99-06. The OI report involved an investigation to determine whether Tennessee Valley Authority (TVA) willfully withheld or assisted in concealing information regarding the condition of new ice condenser ice basket sheet metal screws at the Watts Bar Nuclear Plant (WBN) from 1995 to 1998. The NRC's January 31st letter identified two apparent violations, and also concluded that the evidence indicated that both apparent violations were willful. Enclosures to the NRC's January 31st letter included a summary of OI Report No. 2-98-023, and a summary of the apparent violations. The following provides the salient background information, much of which was included in the NRC's January 31st letter:

- WBN Problem Evaluation Report (PER) WBP950246 was initiated on April 19, 1995, to document that ice condenser ice basket sheet metal screws were found in the ice melt tank after ice loading of the Unit 1 ice condenser. As part of the PER WBP950246 corrective action plan to determine the cause, significance, and resolution of this issue, WBN requested Central Laboratory and Field Testing Services (CLS) to conduct a metallurgical analysis of various screws, including screws found in the ice melt tank, and new screws obtained from the WBN warehouse. Another corrective action, as identified in Part C11, Step 3 of PER WBP950246, included an action for WBN's Nuclear Engineering Department to request that Westinghouse evaluate the data collected from the metallurgical testing and evaluation performed by the CLS.
- The results of the CLS metallurgical analysis were documented in Report 95-1021, approved by the CLS Metallurgical Laboratory Supervisor, and issued on June 2, 1995. The report included a figure (Figure #7) that depicted a crack in a new screw, identified as a Set B screw. The report also included a list of seven factors which, according to CLS, were the probable cause of the failed screws. One of these seven factors (conclusion #6) related to the presence of quench cracks in new screws received from the manufacturer, indicating that the crack originated during the fabrication process.
- Based on concerns that certain information and conclusions contained in the June 2, 1995 report could not be adequately supported by the CLS laboratory observations, a second Report, 95-1021, was issued by CLS on June 19, 1995. Information material to the NRC's OI investigation that was omitted from the second report included Figure #7 depicting a crack in a new screw, conclusion #6 from the list of seven factors which probably caused the screws to fail (in fact, all seven conclusions were removed), and references to cracks formed in new screws during the fabrication process.

Enclosure 2

- WBN subsequently closed PER WBP950246 as evidenced by the signatures of various WBN reviewers and managers on July 28, 1995, including the signature of the WBN Lead Civil Engineer. In this case, closure of the PER on July 28, 1995, indicated that all steps of the corrective action plan were completed. However, the licensee did not complete Step 3 of PER WBP950246 as written, in that TVA did not request Westinghouse to evaluate the data collected from the metallurgical testing and evaluation performed by CLS as documented in the June 2, 1995 CLS report, nor was Westinghouse requested to evaluate the June 19, 1995 CLS report. In lieu of completing Step 3 of PER WBP950246, the licensee used the results of a Westinghouse analysis of broken screws, completed on June 22, 1995. The Westinghouse analysis included an evaluation of the probability and distribution of failed screws (a statistical evaluation), and a discussion of functional aspects for various ice condenser components, to conclude that the ice condenser could be considered operable even with the missing screws. The Westinghouse evaluation, however, did not address the metallurgical aspects of the broken screws, screws currently in use, or new screws.
- The January 31st letter documented the NRC's conclusion that the licensee willfully violated 10 CFR 50, Appendix B, Criterion XVI, Corrective Action. Specifically, a condition adverse to quality involving defective new ice condenser ice basket screws was identified and documented in the June 2, 1995, Central Laboratory and Field Testing Services (CLS) report. However, the licensee did not pursue this issue in a timely manner in that actions were not initiated to fully evaluate the condition until approximately October 1998. In addition, the licensee was knowledgeable of the condition adverse to quality documented in the June 2, 1995 CLS report, knew or should have known that this information was required to be evaluated in accordance with 10 CFR 50, Appendix B, Criterion XVI, and through action or inaction, chose to not properly evaluate this information in a timely manner as required.
- The January 31st letter also documented the NRC's conclusion that the licensee willfully violated 10 CFR Part 50 Appendix B, Criterion V, Instructions, Procedures and Drawings. Specifically, as of approximately July 28, 1995, the licensee failed to follow procedures in that TVA's Nuclear Engineering did not request Westinghouse to evaluate the data collected from the metallurgical testing and evaluation performed by CLS, as documented in Part C11, Step 3 of PER WBP950246. Specifically, WBP950246 Part C11 was signed as being completed, when in fact Nuclear Engineering had not requested Westinghouse to review the metallurgical test results. In addition, individuals who were responsible for closure of PER WBP950246, knew, or should have known, that Westinghouse was not requested to evaluate the data collected from the metallurgical testing and evaluation performed by CLS, but nonetheless documented Part C11, Step 3 of PER WBP950246 as completed.

NEW INFORMATION PROVIDED BY TVA:

Based on the willful aspects of the apparent violations identified in the NRC's January 31, 2000 letter, a closed, predecisional enforcement conference was scheduled to be conducted on April 14, 2000. However, in preparing for the enforcement conference, TVA became aware of new information. Based on our receipt of this information (Enclosure 3) on March 27, 2000, the NRC postponed the conference so that a complete review of this information could be conducted. The purpose of TVA's facsimile was to clarify that certain figures in the June 2 and June 19, 1995 metallurgical reports were of the same cracked screw, and that the screw originated from the ice melt tank and not from the WBN warehouse, as the NRC originally believed. The new information depicts a figure from the "Set B" (Figure 7) screw of the June 2, 1995 metallurgical analysis report compared to a "Set A" (Figure 7) screw from the June 19, 1995 metallurgical analysis report.

SUMMARY OF NRC REVIEW OF NEW INFORMATION PROVIDED BY TVA:

Based on this new information, the NRC conducted a supplemental OI investigation (OI Report No. 2-98-023S), which was completed on June 15, 2000. The NRC technical staff provided support for the OI supplemental investigation. Based on the supplemental OI investigation, the NRC determined the following:

- The NRC technical staff confirmed TVA's assertion that Figure 7 from "Set B" of the June 2, 1995 metallurgical analysis report and Figure 7 from "Set A" (Figure 7) of the June 19, 1995 metallurgical analysis report, were in fact, duplicate figures of the same screw. The NRC concluded that the screw in question was obtained from the ice melt tank, and not the WBN warehouse.
- The CLS metallurgical engineer who prepared the two reports mislabeled a photograph (Figure 7) of a screw in the June 2, 1995 report. The photograph was actually a whole screw ("Set A") obtained from the ice condenser-melt tank rather than a new unused screw ("Set B") obtained from the WBN warehouse. Textual references were also removed from the June 2, 1995 report related to manufacturing defects in a new, unused screw.
- The CLS Metallurgical Laboratory Supervisor and the TVA Chief Metallurgist and Codes Engineer, Nuclear, may not have had a complete understanding of the facts related to why the June 2, 1995 report was revised, and were not clear regarding which screw (a "warehouse screw" or a "screw from the melt tank") exhibited a defect.

NRC CONCLUSIONS:

The new information provided by TVA, the OI supplemental investigation, and review of the NRC technical staff has resulted in a re-evaluation of the conclusions as described in the NRC's letter of January 31, 2000. In particular, the NRC no longer concludes that the licensee willfully chose not to properly evaluate defective new ice condenser ice basket screws from the WBN warehouse. NRC investigation and inspection confirmed that no defective new warehouse ice condenser ice basket screws existed (as mistakenly documented in the June 2, 1995 metallurgical report). The evidence continues to indicate that a whole screw obtained from the ice melt tank contained a crack, which represented a condition adverse to quality, and which should have been promptly identified and evaluated in accordance with 10.CFR 50, Appendix B, Criterion XVI, Corrective Action. Based on OI reports 2-98-023 and 2-98-023S, and NRC Inspection Report No. 50-390,391/99-06, the NRC has concluded the following:

The licensee violated 10 CFR 50, Appendix B, Criterion XVI, Corrective Action. Specifically, a condition adverse to quality was identified and documented in the June 2, 1995, Central Laboratory and Field Testing Services (CLS) report regarding a defect in an ice condenser ice basket screw. However, the licensee did not pursue this issue in a timely manner in that actions were not initiated to fully evaluate the condition until approximately October 1998. The evidence no longer indicates that this violation was willful, but rather was more likely the result of a combination of factors, including mis-communication between TVA organizations, poor record keeping, and inattention to detail.

The licensee willfully violated 10 CFR Part 50 Appendix B, Criterion V, Instructions, Procedures and Drawings. As of approximately July 28, 1995, the licensee failed to follow procedures in that TVA's Nuclear Engineering did not request Westinghouse to evaluate the data collected from the metallurgical testing and evaluation performed by CLS, as documented in Part C11, Step 3 of PER WBPER950246. Specifically, TVA closed PER WBPER950246 as evidenced by the signature of the lead civil engineer on July 28, 1995. However, at the time this individual signed the PER as completed, he knew, or should have known, that Step 3 of the PER was a part of the corrective action plan, and that this action had not been performed as stated in the PER. The NRC's evidence, however, did not indicate that TVA's actions constituted an attempt to conceal information regarding defective ice condenser ice basket screws.