

January 2, 1996

The Honorable Bob Clement
United States House of
Representatives
Washington, DC 20515-4205

Dear Congressman Clement:

I am responding to your October 30, 1995, letter transmitting a letter from your constituent, Ms. Jeannine Honicker, concerning allegations of safety violations at Watts Bar Nuclear Plant, Unit 1.

Ms. Honicker expressed similar concerns based on NRC Inspection Report 50-390, 391/95-47 by her letter to Chairman Jackson dated October 11, 1995. By letter dated December 12, 1995, Mr. William T. Russell, Director, Office of Nuclear Reactor Regulation, responded to her (copy enclosed).

Ms. Honicker also expressed concern about the adequacy of Tennessee Valley Authority's (TVA) decommissioning funds for Watts Bar Nuclear Plant. She provided you with a copy of her October 20, 1995, letter to Mr. John M. Hoskins of TVA, and a copy of his September 28, 1995, letter to her. Also, on October 20, 1995, Ms. Honicker wrote to Chairman Jackson expressing similar concerns regarding decommissioning and financial matters. Mr. Russell responded to her on December 12, 1995 (copy enclosed).

I trust that the above information and the enclosed letters will be useful for your reply to Ms. Honicker. If you have any additional questions concerning this matter, please do not hesitate to contact us.

Sincerely,
Original signed by
James M. Taylor

James M. Taylor
Executive Director for Operations

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Docket No.: 50-390

Enclosures: Two letters, W. Russell to J. Honicker
December 12, 1995

Distribution without enclosures:

Docket File 50-390/391 (w/incoming)

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 12, 1995

Ms. Jeannine Honicker
362 Binkley Drive
Nashville, Tennessee 37211

Dear Ms. Honicker:

I am responding to your letter of October 11, 1995. The staff of the Nuclear Regulatory Commission has evaluated the concerns you expressed about our Inspection Report (IR) 50-390, 50-391/95-47.

As background, it is important to understand where the report and the Design Baseline Verification Program (DBVP) Corrective Action Program (CAP) fit into the overall process for making the licensing decision for the Watts Bar Nuclear Plant. The DBVP CAP was specifically established to correct inconsistencies between the licensing and design-basis documentation, as well as inconsistencies between actual plant configurations and the as-constructed drawings. This CAP is one of 28 CAPs and special programs developed by TVA to correct deficiencies identified in the mid-1980s. As such, it deals with a portion of the total hardware and programmatic problems that had to be resolved before a licensing decision could be made. The report in question is one of over 60 Watts Bar inspection reports issued so far this year. We issued over 80 Watts Bar inspection reports last year.

In your letter, you expressed concerns about our evaluation of Corrective Action Tracking Documents (CATDs) and the impact on personnel raising safety concerns related to the CATDs. I have enclosed a portion of NUREG-0847, Supplement 13 to the Watts Bar Safety Evaluation Report. This document describes the relationship between the employee concerns raised in the mid-1980s, the CATDs developed, and our inspection and review of this activity. This document provides both a historical and a current NRC perspective and should address your questions about the interaction between NRC and TVA with respect to resolving specific employee concerns, and the relationship of these concerns to the CATDs. The employee concerns on which CATDs were based, were made in confidence to a TVA contractor hired to interview all Watts Bar employees, not to the NRC. TVA was not given the name that corresponds with the employee concern. Therefore, it would be inappropriate for the contractor or NRC to release the names of these individuals to you. Supplement 17 to the Safety Evaluation Report, discussed later in this letter, should also provide you an overview of how CATDs and CAPs fit together.

With respect to your comments on the conclusion reached in the inspection report that the DBVP CAP had been "adequately implemented," this CAP had been inspected, as the report stated, several times in the last few years. We determined through those previous inspections and the inspection documented in IR 95-47 that the programmatic objectives of the DBVP CAP had been met. The unresolved item identified in IR 95-47 was a specific technical issue requiring resolution by TVA. By identifying an item as unresolved and assigning it a unique identification number, the NRC assures that the item will be inspected in the future. The inspector followup items identify

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specific items to which NRC intends to devote inspection resources but that are not associated with violations of NRC regulations. These items did not invalidate the conclusion that the DBVP CAP objectives had been met. It should be noted that the unresolved and inspector followup items are not linked to specific employee concerns. The three items have subsequently been inspected by the NRC staff, found to be acceptable, and the inspection is being documented in IR 50-390, 391/95-72. This IR will be issued in November 1995. The 230 items were licensee identified, and TVA was correcting them. Our sample is considered sufficient to assure that the scope and effectiveness of TVA actions were sufficient in closing these items. The previous inspections included reviews of several plant systems for design adequacy. On the basis of these inspections and the samples evaluated during this inspection (selected as representative of the remaining work), the NRC staff determined that the overall DBVP CAP objectives had been met and that no further evaluation of TVA corrective actions for this CAP was necessary.

In your letter, you questioned the resolution of the technical issues in several of the CATDs reviewed during the inspection documented in IR 95-47. Before discussing the specific CATDs, a few general comments covering several of these items are warranted. First, our statement that the employee concerns were resolved at the end of each section that reviewed a CATD referred only to those employee concerns related to that CATD. Second, your letter questions why the NRC does not conduct 100-percent inspections. NRC regulations require licensees to implement complete quality assurance programs, and the staff verifies through audits and samples that licensees have effectively fulfilled this quality mandate. The amount of review performed by the NRC staff is directly related to the safety significance of the system, component, or activity and to the past performance of the licensee. At the time of the subject inspection the NRC had already conducted approximately 40 inspections of the implementation of over 300 CATDs at the Watts Bar facility. Starting in 1994, with the addition of the Lookback Project, the NRC gained confidence that TVA's CATD program implementation was successfully resolving the employee concerns contained in the Employee Concerns Special Program. For several of the CATDs in the subject report, the fact that TVA was actively correcting problems in a specific area and that NRC had inspected a significant sample of the work accomplished under the CATD and found it acceptable satisfied the NRC that devotion of resources to follow up on completion of the small amount of remaining work would not provide a justifiable safety benefit.

You also questioned the use of the term "generally adequate." This term is used to describe activities that meet regulatory requirements based on inspection findings. It does not imply that every single licensee activity or action has been inspected by the NRC and found to be perfect. An activity may be acceptable in an overall sense even though one or more problems are identified (and redressed) from time to time. NRC findings of "general adequacy" characterize the inspected programs and performance as acceptable.

With respect to the CATDs in paragraph 2.3.1 of IR 95-47, the references to FSAR discrepancies identified in PAC/AQ and DBVP inspections were to items discussed in the previous inspection reports listed. These discrepancies were minor as shown in the letters transmitting the inspection reports to TVA and

in the inspection report executive summaries. The NRC used these inspections to ensure the commitments in the FSAR of how Watts Bar was to be constructed were transmitted into the documents used by the designers to design the actual hardware configuration of the plant. Some field inspection was accomplished during these inspections to verify that the design requirements that were transmitted through the design drawings were implemented in the construction of the plant. In addition to the PAC/AQ and DBVP inspections the NRC has conducted a significant number of system walkdown inspections which have consistently agreed with the conclusion that the design and construction of the plant agree and are consistent with the descriptions in the FSAR. The complete reports are available in the Public Document Room. Your questions involving the employees and their concerns are addressed in the enclosed Supplemental Safety Evaluation Report extract discussed above.

For the CATDs in paragraph 2.3.2 of IR 95-47, there are several important points to note. First, the NRC staff found TVA's resolution of the major issue in these CATDs, the electrical calculation program, to be adequate. As discussed above the NRC first addressed the programmatic nature of the calculation programs. Several Integrated Design Inspections were conducted to verify that TVA had properly implemented the FSAR and NRC regulations through the calculation program. The calculations identified some situations where plant modifications were necessary. These modifications included some electrical circuit breaker setting changes, changes in the load sequence settings for the diesel generators, and replacement of some electrical cable to meet load carrying requirements. NRC inspections of these corrective actions have shown that they have been adequately completed. In relation to the subject CATD on breaker settings, an isolated problem was found on the NRC followup inspection that resulted in a minor hardware setting change that had little safety significance.

With respect to paragraph 2.3.3 of IR 95-47, as previously discussed, the term "in general" used with "adequate" means that this activity meets NRC regulatory requirements and is being satisfactorily implemented.

As discussed in paragraph 2.3.4 of IR 95-47, the resolution of this CATD involved removal of the reference to the National Electric Code (NEC). The Watts Bar Final Safety Analysis Report (FSAR) is the document by which TVA commits to those codes and standards to which the plant must adhere for design and construction activities. The FSAR commits to appropriate Institute of Electrical and Electronics Engineers (IEEE) standards for electrical construction of the plant, not to the NEC. The IEEE codes are the standards to which nuclear power plant electrical systems are designed and constructed. The NRC approves the FSAR in a Safety Evaluation Report (NUREG-0847) and supplements thereto. The NEC itself in section 90-2 (enclosed) states that it is not applicable to power plants. However, a licensee is free to use portions of the NEC where they believe it is appropriate to describe to their design personnel how to conduct an activity as long as it does not supersede or modify a code of record. If they want to modify a code of record they must advise NRC in writing and obtain NRC acceptance. In this particular case, the CATD was issued because TVA had not followed the procedure which required use of a section of the NEC. TVA found that what was actually done was more conservative than the NEC. TVA admitted by issuance of the CATD that they

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should previously have changed the procedure to remove the less conservative NEC reference rather than not following it. Excerpts from Subcategory Report 26500 which describe the issues raised by CATDs 23702-WBN-02, 04, and -05 are enclosed per your request.

TVA action on the CATD reviewed in paragraph 2.3.5 of IR 95-47 had not been completed when the inspection took place. As discussed previously, the fact that TVA was actively correcting problems in this area and that NRC had inspected a significant sample of the work accomplished under the CATD and found it acceptable satisfied the NRC that devotion of resources to follow up on completion of the small amount of remaining work would not provide a justifiable safety benefit. There are no accidents that could occur due to the deficiencies associated with this issue. TVA action on this CATD has now been completed.

In paragraph 2.3.6 of IR 95-47, the NRC corrective action followup was deferred from review of the CATD to a specific construction deficiency report (CDR), which is a report to the NRC required by regulations. The NRC inspection program requires the staff to followup on construction deficiency reports. The inspection of the CATD confirmed that the corrective action for the CDR would resolve the associated employee concerns. The NRC has subsequently inspected the subject CDR for resolution, found TVA's actions to be acceptable, and is documenting the results of that inspection in IR 50-390, 391/95-72.

You also indicated a concern about the treatment of and feedback to employees who raised safety concerns in the mid-1980s and, specifically, about the individuals status as "whistleblowers." "Whistleblower" is not an official term, however. For any person who brought a complaint to the NRC (i.e., an allegor), we have followed their issues to resolution and attempted to provide them with written feedback. For "whistleblowers" who chose a different avenue to raise issues, the NRC does not provide them with followup. If a "whistleblower" makes a complaint of harassment, intimidation, or retaliation to the Department of Labor, the NRC will open a case and follow up as appropriate.

Although your letter focuses primarily on one specific inspection report, you appear to be more concerned with the licensing of the Watts Bar facility. We have recently completed an overall assessment of quality for Watts Bar, documented in Supplement 17 to NUREG-0847 mentioned above. I understand that the staff's project manager, Peter Tam, has sent a copy of this supplement to you. Supplement 17 documents the comprehensive and lengthy process we have followed in order to ensure that any licensing decision made for Watts Bar will be based on facts and inspection results. If you have any additional questions after reading the enclosure and Supplement 17, please contact Peter Tam at (301) 415-1451.

Sincerely,



William T. Russell, Director
Office of Nuclear Reactor Regulation

Enclosure: As stated



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 12, 1995

Ms. Jeannine Honicker
362 Binkley Drive
Nashville, TN 37211

Dear Ms. Honicker:

I am responding to your letter dated October 20, 1995, to Chairman Jackson. In that letter, you expressed several concerns related to the ability of the Tennessee Valley Authority (TVA) to safely operate and decommission its nuclear plants, including its Watts Bar facility, because of purported financial weaknesses. This letter addresses your concerns in the order in which you raised them in your letter.

Your first concern: You indicate that, in 1993, TVA sold off the securities in its decommissioning fund and used the proceeds for its power program. Based on this action, you asked, "Did TVA ask NRC's permission to sell its decommissioning funds and divert the proceeds to TVA's power program? Did NRC give its permission?"

You further stated, "I am particularly concerned because of the impending fuel loading of Watts Bar. I believe that this clearly shows that TVA does not nor will it have sufficient money to decommission three reactors at Browns Ferry, two reactors at Sequoyah, and should it ever become radioactive, Watts Bar."

TVA neither asked nor is required under NRC regulations to seek permission to sell the securities in its decommissioning fund. Under 10 CFR 50.75(e)(3)(iv), TVA, as a Federal Government licensee, may provide financial assurance of decommissioning by submitting a statement of intent containing a cost estimate for decommissioning and indicating that funds for decommissioning will be obtained when necessary. The NRC chose to allow TVA to use the "statement of intent" method of providing decommissioning funding assurance during its deliberations in the mid-1980s on the decommissioning funding rule. The NRC based this decision both on TVA's ability to set its own electricity rates, which allows recovery of decommissioning costs over time from its ratepayers, and on the indirect backing of TVA's bonds by the U.S. Treasury.

The NRC currently has a rulemaking plan to reevaluate its decommissioning funding assurance regulations in light of the deregulation projected to occur in the electric utility industry. (This plan is contained in SECY-95-223, enclosed.) If the conditions upon which the NRC allowed statements of intent appear to be changing, the NRC will consider revising the assurance mechanisms allowed for licensees such as TVA. You will, of course, have the opportunity to comment on any rule changes that the NRC proposes as a result of this reevaluation.

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Your second concern: You assert that TVA is in "desperate financial straits" and state, "The only requirement that NRC has concerning TVA's financial condition is to be assured that TVA has sufficient funds to build and operate all its nuclear plants safely and to be able to decommission them." You also refer to an August 1995 report by the General Accounting Office (GAO), "Tennessee Valley Authority, Financial Problems Raise Questions About Long-term Viability" (GAO/AIMID/RCED-95-134).

The NRC has reviewed the GAO report to which you refer. Although the GAO report raises issues that bring into question TVA's ability over the long term to compete with electric utilities contiguous to its service territory, the NRC does not believe that the report raises significant concerns about TVA's ability to operate and decommission its nuclear plants safely.

NRC's approach for licensees that encounter financial stress is to devote adequate inspection resources to ensure that operations continue to meet NRC safety standards. The NRC has completed several analyses over the past several years that have not shown any consistent relationship between a licensee's overall financial health and safe operation at its nuclear plants. Thus, the NRC believes that its inspection program is more effective than general financial reviews in identifying potential operational safety problems. The NRC intends to use this approach with TVA, as necessary. Further, 10 CFR 50.33(f) of the NRC's regulations provide that a power reactor licensee that is an "electric utility" as defined in 10 CFR 50.2 is exempt from financial qualifications review at the Operating License stage. Because TVA meets the definition of "electric utility," it is exempt from formal NRC financial qualifications review.

Even in the few cases in which power reactor licensees have obtained bankruptcy protection (e.g., Public Service Company of New Hampshire and El Paso Electric Company for minority shares of the Seabrook and Palo Verde facilities, respectively), the Bankruptcy Courts have directed that these companies continue to pay operating and decommissioning costs. (Cajun Electric Power Cooperative, a 30 percent owner of the River Bend facility, has also sought bankruptcy protection. Cajun has withheld payment for its share of River Bend operating expenses, and has indicated its intention to continue to do so until directed otherwise by the Bankruptcy Court. However, Gulf States Utilities Company, the majority owner of River Bend, has covered River Bend's full operating costs. Also, Cajun has continued to pay into River Bend's decommissioning fund.) Although stock and bond holders have suffered losses during these bankruptcy proceedings, utilities have continued to generate sufficient revenues from continued operation of their nuclear and non-nuclear plants to pay for operational and decommissioning costs.

As indicated in my response to your first concern, if the NRC determines that additional financial measures are needed to ensure safe operations and decommissioning as a result of electric utility deregulation, you will have an opportunity to comment on rulemaking that the NRC proposes.

Your third concern: You refer to a report prepared for Greenpeace by David A. Blecker, MSB Energy Associates, Inc., entitled "TVA Watts Bar Unit

Jeannine Honicker

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Decommissioning Cost Estimates," August 10, 1995. That report estimates that decommissioning for Watts Bar, Unit 1, will cost nearly \$6 billion in 2025.

The NRC disagrees that decommissioning Watts Bar, Unit 1, will cost nearly \$6 billion. The NRC has recently updated its studies of light-water-reactor decommissioning costs performed by its contractor, Pacific Northwest Laboratory. (See "Revised Analyses of Decommissioning for the Reference Pressurized Water Reactor Power Station" (NUREG/CR-5884) and "Revised Analyses of Decommissioning for the Reference Boiling Water Reactor Power Station" (NUREG/CR-6174).) These studies found that decommissioning costs for a pressurized-water reactor will range from \$133 million to \$227 million in 1993 dollars. Costs for decommissioning a boiling-water reactor would range from \$158 million to \$305 million. These estimates include a 25-percent contingency, which the NRC believes represents reasonable engineering judgment. Even if these estimates are inflated for 30 years at the 2-percent real rate assumed in the Blecker study, decommissioning costs would not exceed \$687 million. Further, actual experience at reactor sites that have decommissioned, such as Shippingport and Shoreham, or that are well into the decommissioning process, such as Fort St. Vrain, indicate that actual decommissioning costs are much closer to the NRC estimates than to the Blecker estimates. (Shippingport cost approximately \$91.3 million to decommission; Shoreham approximately \$190 million; and Fort St. Vrain approximately \$190 million.)

Sincerely,



William T. Russell, Director
Office of Nuclear Reactor Regulation

Attachment:
As stated