

**NUCLEAR REGULATORY COMMISSION**

**[NRC-2012-0171]**

**In the Matter of**

**Tennessee Valley Authority  
Watts Bar Nuclear Plant**

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**Docket Nos.: 50-391  
Construction Permit No. CPPR-92  
  
EA-12-021**

**Confirmatory Order  
(Effective Immediately)**

I

Tennessee Valley Authority (TVA or Applicant) is the holder of Construction Permit No. CPPR-92, issued by the U.S. Nuclear Regulatory Commission (NRC or the Commission) pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, on January 23, 1973, and extended to March 31, 2013. The permit authorizes the construction of Watts Bar Nuclear Plant, Unit 2 (Watts Bar or facility), in accordance with conditions specified therein. The facility is located on the Applicant's site in Spring City, Tennessee.

This Confirmatory Order is the result of an agreement reached during an alternative dispute resolution (ADR) mediation session conducted on May 21, 2012.

II

On January 13, 2012, the NRC's Office of Investigations (OI) completed an investigation (OI Case No. 2-2011-003) regarding activities at the Watts Bar Nuclear Plant. Based on the evidence developed during the investigation, the NRC staff concluded that on or about August 16, 2010, an electrician and foreman employed by a subcontractor at Watts Bar, Unit 2, deliberately falsified work order packages for primary containment penetrations, and caused

TVA to be in apparent violation of 10 CFR Part 50, Appendix B, Criterion V, *Instructions, Procedures, and Drawings*, and 10 CFR 50.9, *Completeness and Accuracy of Information*. The results of the investigation were sent to TVA in a letter dated March 23, 2012.

### III

On May 21, 2012, the NRC and TVA met in an ADR session mediated by a professional mediator, arranged through Cornell University's Institute on Conflict Resolution. ADR is a process in which a neutral mediator with no decision-making authority assists the parties in reaching an agreement or resolving any differences regarding their dispute. This confirmatory order is issued pursuant to the agreement reached during the ADR process. The elements of the agreement consist of the following:

1. TVA agreed that on or about August 16, 2010, one violation occurred involving the requirements of 10 CFR Part 50, Appendix B, Criterion V, *Instructions, Procedures, and Drawings*, and 10 CFR 50.9, *Completeness and Accuracy of Information*. Specifically, on August 16, 2010, two subcontractor employees (one craft and one craft foreman) at Watts Bar Unit 2 deliberately falsified the micrometer readings for cables listed in Modification/Addition Instruction (MAI) 3.3 data sheets, and falsely annotated on the WOs that micrometer readings had been performed for cables in primary containment penetrations, when the micrometer readings had not been completed. Additionally, the craft foreman falsely attested that a work order review, field walk down, review of craft documentation, and the scope of work had all been completed. The failure to follow the WO procedures and perform the required micrometer measurements, field walk downs, and WO reviews is a violation of 10 CFR Part 50, Appendix B, Criterion V, which requires, in part, that activities affecting quality shall be prescribed by documented

instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. As a result of the WOs and MAI 3.3 data sheets being falsified, the applicant also failed to comply with 10 CFR 50.9(a), which requires, in part, that information required by the Commission's regulations to be maintained by an applicant shall be complete and accurate in all material respects. 10 CFR Part 50, Appendix B, Criterion XVII, *Quality Assurance Records*, requires that sufficient records be maintained to furnish evidence of activities affecting quality. The WOs and associated MAI-3.3 data sheets are related to primary containment penetration electrical cabling, which involve activities affecting quality, and thus are required by 10 CFR Part 50, Appendix B, Criterion XVII, to be maintained by an applicant.

2. At the ADR, TVA provided corrective actions and enhancements taken shortly after its identification of the incident in August 2010. These actions included but were not limited to the following:
  - a. The prompt cessation of all containment electrical penetration work activities, and the initiation of an internal review of the incident. Prior to resuming work associated with electrical penetrations, briefings were conducted with contractor electrical support personnel regarding the falsification event and lessons learned to ensure that the scope of the event was communicated to the group.
  - b. TVA conducted a root cause evaluation of the incident. In addition, an extent of condition review of the incident was conducted, which confirmed that there were no additional examples of falsification.

- c. TVA's Office of Inspector General performed an independent investigation of this event, the results of which led to felony prosecution and conviction of two individuals for falsifying government records.
  - d. Safety meetings were conducted the week of April 5, 2011, with all contractor personnel (supervision, support personnel, and craft) that addressed the Watts Bar Unit 2 Site Vice President's and Contractor Project Manager's expectations regarding the value of one's signature and warning about the falsification of documents.
  - e. TVA recognized the need to re-enforce, TVA fleet-wide, many of the same human performance factors that were identified as contributors to the electrical penetration event. In June 2011, TVA implemented the Operating Group Human Performance (HU) program to promote behaviors throughout the TVA Operating Group (both Nuclear and non-Nuclear) that support safe and reliable execution of work, and that contribute to achieving an incident-free safety culture.
  - f. TVA has also completed 10 CFR 50.9 training at Bellefonte Nuclear Plant for the TVA and Contractor leadership team. This training was conducted in five separate training sessions from June 2011 through November 2011.
3. Based on TVA's review of the incident and NRC concerns with respect to precluding recurrence of the violation, TVA agrees to the following corrective actions and enhancements:

- a. The Chief Nuclear Officer and the Senior Vice President of Nuclear Construction will issue a joint communication to all Nuclear Power Group and Nuclear Construction employees, including contractor and subcontractor employees located at TVA nuclear sites, regarding expectations for assuring work activities are performed and documented in a complete and accurate manner. This communication will be issued on or before August 1, 2012.
- b. These expectations will be reinforced through the use of fleet wide posters and communications. Communications will specifically discuss 10 CFR 50.9, complete and accurate information, willful violations, and their consequences. Posters will be installed on or before October 1, 2012.
- c. TVA will revise the existing Nuclear Power Group procedure on procedure use and adherence to reinforce the requirements of 10 CFR 50.9 and the need to ensure complete and accurate documentation of work completion steps. TVA will update major contracts to include the requirement to comply with TVA's Procedure Use and Adherence procedure. Revisions will be completed by December 21, 2012.
- d. TVA will provide 10 CFR 50.9 training (both manager/supervisor as well as craft-level) to employees, including contractor and subcontractor employees, at all Nuclear Construction (Watts Bar Unit 2 and Bellefonte) locations. Training will be completed by December 21, 2012.

- e. TVA will provide refresher 10 CFR 50.9 training (both manager/supervisor as well as craft-level) to employees, including contractor and subcontractor employees, at all Nuclear Construction (Watts Bar Unit 2 and Bellefonte) locations every two years through 2016. TVA will reassess the continued need for such training thereafter.
- f. TVA will enhance existing 10 CFR 50.9-related general employee training (GET) for new employees, including contractor and subcontractor employees located at TVA nuclear sites, joining Nuclear Power Group and Nuclear Construction and update annual requalification GET training. TVA will complete this item by December 21, 2012.
- g. Within six months of issuance of the Confirmatory Order, and again on or before July 1, 2013, TVA will perform checks of the Watts Bar Unit 2 Employee Concerns Program (ECP), to identify undue scheduling pressure issues identified by employees and employees of construction contractors and subcontractors. Issues identified will be addressed commensurate with safety and in accordance with TVA's Corrective Action Program.
- h. TVA will perform an effectiveness review of actions taken and actions planned, including those taken in response to the ECP checks described in Item 5.g, on or before July 1, 2013. Based on the results of the effectiveness review, TVA will implement appropriate corrective actions.
- i. Upon completion of the terms of the Confirmatory Order, TVA will provide the NRC with a letter discussing its basis for concluding that the Order has been satisfied.

4. The NRC considers the corrective actions and enhancements discussed in Section III and Section V of this Confirmatory Order to be appropriately prompt and comprehensive to address the root and contributing causes that gave rise to the incident of August 2010.
5. The NRC and TVA agree that the above elements will be incorporated into a Confirmatory Order.
6. The resulting Confirmatory Order will be considered an escalated enforcement action by the NRC for any future assessment of Watts Bar, as appropriate.
7. In consideration of the commitments delineated in Section III.3 and Section V of this Confirmatory Order, the NRC agrees to refrain from proposing a civil penalty or issuing a Notice of Violation for all matters discussed in the NRC's letter to TVA of March 23, 2012 (EA-12-021).
8. This agreement is binding upon successors and assigns of TVA.

On June 12, 2012, the Applicant consented to issuance of this Order with the commitments, as described in Section V below. The Applicant further agreed that this Order is to be effective upon issuance and that it has waived its right to a hearing.

#### **IV**

Since the Applicant has agreed to take actions to address the violation as set forth in Section V, the NRC has concluded that its concerns can be resolved through issuance of this Order.

I find that the Applicant's commitments as set forth in Section V are acceptable and necessary and conclude that with these commitments the public health and safety are reasonably assured. In view of the foregoing, I have determined that public health and safety require that the Applicant's commitments be confirmed by this Order. Based on the above and the Applicant's consent, this Order is immediately effective upon issuance.

V

Accordingly, pursuant to Sections 104b., 161b., 161i., 161o., 182, and 186 of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations in 10 CFR 2.202 and 10 FR Part 50, IT IS HEREBY ORDERED, EFFECTIVE IMMEDIATELY, THAT CONSTRUCTION PERMIT NO. CPPR-92 IS MODIFIED AS FOLLOWS:

- a. TVA's Chief Nuclear Officer and the Senior Vice President of Nuclear Construction will issue a joint communication to all Nuclear Power Group and Nuclear Construction employees, including contractor and subcontractor employees located at TVA nuclear sites, regarding expectations for assuring work activities are performed and documented in a complete and accurate manner. This communication will be issued on or before August 1, 2012.
- b. These expectations will be reinforced through the use of fleet wide posters and communications. Communications will specifically discuss 10 CFR 50.9, complete and accurate information, willful violations, and their consequences. Posters will be installed on or before October 1, 2012.



- c. TVA will revise the existing Nuclear Power Group procedure on procedure use and adherence to reinforce the requirements of 10 CFR 50.9 and the need to ensure complete and accurate documentation of work completion steps. TVA will update major contracts to include the requirement to comply with TVA's Procedure Use and Adherence procedure. Revisions will be completed by December 21, 2012.
  
- d. TVA will provide 10 CFR 50.9 training (both manager/supervisor as well as craft-level) to employees, including contractor and subcontractor employees, at all Nuclear Construction (Watts Bar Unit 2 and Bellefonte Nuclear Plant) locations. Training will be completed by December 21, 2012.
  
- e. TVA will provide refresher 10 CFR 50.9 training (both manager/supervisor as well as craft-level) to employees, including contractor and subcontractor employees, at all Nuclear Construction (Watts Bar Unit 2 and Bellefonte Nuclear Plant) locations every two years through 2016. TVA will reassess the continued need for such training thereafter.
  
- f. TVA will enhance existing 10 CFR 50.9-related general employee training (GET) for new employees, including contractor and subcontractor employees located at TVA nuclear sites, joining Nuclear Power Group and Nuclear Construction and update annual requalification GET training. TVA will complete this item by December 21, 2012.

- g. Within six months of issuance of the Confirmatory Order, and again on or before July 1, 2013, TVA will perform checks of the Watts Bar Unit 2 construction contractors and subcontractors, via its Employee Concerns Program (ECP), to identify undue scheduling pressure issues. Issues identified will be addressed commensurate with safety and in accordance with TVA's Corrective Action Program.
  
- h. TVA will perform effectiveness review of actions taken and actions planned, including those taken in response to the ECP checks described in Item 5.g, on or before July 1, 2013. Based on the results of the effectiveness review, TVA will implement appropriate corrective actions.
  
- i. Upon completion of the terms of the Confirmatory Order, TVA will provide the NRC with a letter discussing its basis for concluding that the Order has been satisfied.

The Regional Administrator, NRC Region II, may relax or rescind, in writing, any of the above conditions upon a showing by TVA of good cause.

## VI

Any person adversely affected by this Confirmatory Order, other than TVA, may request a hearing within 20 days of its publication in the *Federal Register*. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time must be made in writing to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and include a statement of good cause for the extension.

All documents filed in NRC adjudicatory proceedings, including a request for hearing, a petition for leave to intervene, any motion or other document filed in the proceeding prior to the submission of a request for hearing or petition to intervene, and documents filed by interested governmental entities participating under 10 CFR 2.315(c), must be filed in accordance with the NRC E-Filing rule (72 FR 49139; August 28, 2007). The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases to mail copies on electronic storage media. Participants may not submit paper copies of their filings unless they seek an exemption in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by e-mail at [hearing.docket@nrc.gov](mailto:hearing.docket@nrc.gov), or by telephone at 301-415-1677, to request (1) a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign documents and access the E-Submittal server for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a request or petition for hearing (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the hearing in this proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals/apply-certificates.html>. System requirements for accessing the E-Submittal server are detailed in NRC's "Guidance for Electronic Submission," which is available on the agency's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>. Participants may attempt to use other software

not listed on the Web site, but should note that the NRC's E-Filing system does not support unlisted software, and the NRC Meta System Help Desk will not be able to offer assistance in using unlisted software.

If a participant is electronically submitting a document to the NRC in accordance with the E-Filing rule, the participant must file the document using the NRC's online, Web-based submission form. In order to serve documents through the Electronic Information Exchange System, users will be required to install a Web browser plug-in from the NRC's Web site. Further information on the Web-based submission form, including the installation of the Web browser plug-in, is available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>.

Once a participant has obtained a digital ID certificate and a docket has been created, the participant can then submit a request for hearing or petition for leave to intervene. Submissions should be in Portable Document Format (PDF) in accordance with the NRC guidance available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>. A filing is considered complete at the time the documents are submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an e-mail notice confirming receipt of the document. The E-Filing system also distributes an e-mail notice that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the documents on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before a hearing request/petition to intervene is filed so that they can obtain access to the document via the E-Filing system.

A person filing electronically using the agency's adjudicatory E-Filing system may seek assistance by contacting the NRC Meta System Help Desk through the "Contact Us" link located on the NRC's Web site at <http://www.nrc.gov/site-help/e-submittals.html>, by e-mail at [MSHD.Resource@nrc.gov](mailto:MSHD.Resource@nrc.gov), or by a toll-free call at 1-866-672-7640. The NRC Meta System Help Desk is available between 8 a.m. and 8 p.m., Eastern Time, Monday through Friday, excluding government holidays.

Participants who believe that they have a good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) first class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemaking and Adjudications Staff; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, Sixteenth Floor, One White Flint North, 11555 Rockville Pike, Rockville, Maryland, 20852, Attention: Rulemaking and Adjudications Staff. Participants filing a document in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service. A presiding officer, having granted an exemption request from using E-Filing, may require a participant or party to use E-Filing if the presiding officer subsequently determines that the reason for granting the exemption from use of E-Filing no longer exists.

Documents submitted in adjudicatory proceedings will appear in NRC's electronic hearing docket, which is available to the public at <http://ehd1.nrc.gov/ehd/>, unless excluded pursuant to an order of the Commission, or the presiding officer. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or home phone numbers in their filings, unless an NRC regulation or other law requires submission of such information. With respect to copyrighted works, except for limited

excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants are requested not to include copyrighted materials in their submission.

If a person (other than TVA) requests a hearing, that person shall set forth with particularity the manner in which his interest is adversely affected by this Confirmatory Order and shall address the criteria set forth in 10 CFR 2.309(d) and (f).

If a hearing is requested by a person whose interest is adversely affected, the Commission will issue an order designating the time and place of any hearing. If a hearing is held, the issue to be considered at such hearing shall be whether this Confirmatory Order should be sustained.

In the absence of any request for hearing, or written approval of an extension of time in which to request a hearing, the provisions specified in Section V above shall be final 20 days from the date on which this Confirmatory Order is published in the *Federal Register*, without further order or proceedings. If an extension of time for requesting a hearing has been approved, the provisions specified in Section V shall be final when the extension expires if a hearing request has not been received.

A REQUEST FOR HEARING SHALL NOT STAY THE IMMEDIATE EFFECTIVENESS OF THIS ORDER.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/  
Victor M. McCree  
Regional Administrator

Dated this 18<sup>th</sup> day of June 2012