



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

CNL-13-124

December 2, 2013

10 CFR 50.54(f)

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Watts Bar Nuclear Plant, Unit 1
Facility Operating License No. NPF-90
NRC Docket No. 50-390

Subject: **Tennessee Valley Authority (TVA) - Response to NRC Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding the Watts Bar Nuclear Plant Seismic Walkdown Results of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident**

References:

1. NRC Letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012 (ML12053A340)
2. NRC Letter, "Endorsement of Electric Power Research Institute (EPRI) Draft Report 1025286, "Seismic Walkdown Guidance," dated May 31, 2012 (ML12145A529)
3. TVA Letter to NRC, "Tennessee Valley Authority - Response to NRC Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding the Seismic Aspects for Recommendation 2.3 of the Near-Term Task Force (NTTF) Review of Insights from the Fukushima Dai-ichi Accident," dated July 10, 2012 (ML12193A509)

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4. TVA Letter to NRC, "Tennessee Valley Authority (TVA) - Response to NRC Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding the Watts Bar Nuclear Plant Seismic Walkdown Results of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated November 27, 2012 (ML12353A250)
5. NRC Letter, "Request for Additional Information Associated with Near-Term Task Force Recommendation 2.3, Seismic Walkdowns," dated November 1, 2013 (ML13304B418)

On March 12, 2012, the NRC issued Reference 1 to all power reactor licensees and holders of construction permits in active or deferred status. Enclosure 3 of Reference 1 contains specific Requested Actions, Requested Information, and Required Responses associated with Near Term Task Force (NTTF) Recommendation 2.3: Seismic.

The Electric Power Research Institute (EPRI) subsequently developed guidance for the performance of seismic walkdowns, and the NRC endorsed this guidance on May 31, 2012 (Reference 2). By letter dated July 10, 2012 (Reference 3), TVA provided a required response to item 1 in Enclosure 3 of Reference 1, informing the NRC that it intended to perform the seismic walkdown in accordance with the EPRI guidance.

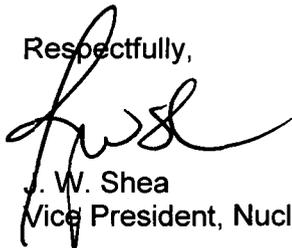
TVA completed the seismic walkdowns in accordance with the EPRI guidance and provided the Seismic Walkdown Reports for the Watts Bar Nuclear Plant (WBN), Unit 1, to the NRC on November 27, 2012 (Reference 4). On November 1, 2013, the NRC issued a Request for Additional Information (RAI) letter related to the seismic walkdown reports (Reference 5). Reference 5 requested a response no later than 30 days from the date of the letter, which would be December 1, 2013.

The purpose of this letter is to provide a response to the RAI letter. The Enclosure to this letter provides TVA's response to the RAIs for WBN, Unit 1.

There are no new regulatory commitments in this letter. If you have questions regarding this matter, please contact Kevin Casey at (423) 751-8523.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 2nd day of December 2013.

Respectfully,



J. W. Shea
Vice President, Nuclear Licensing

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Enclosure

Watts Bar Nuclear Plant, Unit 1 - Response to Additional Information Associated with
Near-Term Task Force Recommendation 2.3, Seismic Walkdowns

cc (Enclosure):

NRC Regional Administrator - Region II
NRR Director - NRC Headquarters
NRC Senior Resident Inspector - Watts Bar Nuclear Plant
NRR Project Manager - Watts Bar Nuclear Plant

ENCLOSURE

**WATTS BAR NUCLEAR PLANT, UNIT 1
RESPONSE TO ADDITIONAL INFORMATION ASSOCIATED WITH
NEAR-TERM TASK FORCE RECOMMENDATION 2.3: SEISMIC WALKDOWNS**

REQUEST FOR ADDITIONAL INFORMATION

Seismic Walkdowns

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff issued a letter requesting additional information per Title 10 of the Code of Federal Regulations, Section 50.54(f) (hereafter called the 50.54(f) letter). The 50.54(f) letter requested that licensees conduct seismic hazard walkdowns to verify the plant configuration with the current licensing basis (CLB). The licensees stated by letter that the seismic walkdowns would be performed in accordance with Electric Power Research Institute EPRI-1025286, "Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic" (walkdown guidance). Following the NRC staff's initial review of the walkdown reports, regulatory site audits were conducted at a sampling of plants. Based on the walkdown report reviews and site audits, the staff identified additional information necessary to allow the staff to complete its assessments.

RAI 1. Conduct of the walkdowns, determination of potentially adverse seismic conditions (PASCs), dispositioning of issues, and reporting

As a result of the audits and walkdown report reviews, the NRC staff noted that licensees' interpretations of the seismic walkdown guidance varied, which resulted in meaningful differences in the process used to disposition identified issues and in the documentation that was provided to the NRC staff. In particular, the application of engineering judgment in determining what constituted a potentially adverse seismic condition (PASC), the threshold for conducting licensing basis evaluations (LBEs), and determining what information was to be reported to the NRC staff varied.

The NRC staff intended that conditions initially marked No (N) or Unknown (U) in the field by the seismic walkdown engineers (SWEs) for which an analysis or calculation was performed would be considered as PASCs and that an analysis or calculation constituted an LBE. The walkdown guidance allows for analysis as part of engineering judgment; however, the intent was to allow for only simple analyses that could be readily performed in support of engineering judgment. Further, the walkdown activities were intended to allow for transparency in the licensee's process to demonstrate that PASCs were appropriately identified, that they were addressed in an appropriate manner, and the basis documented such that the current condition of the plant was clearly consistent with the CLB with regard to seismic capability.

During the audits, the NRC staff identified examples of field observations that were deemed not to be PASCs. However, the basis for the determination was not clearly recorded. In some cases, the field checklists were amplified by noting that the basis was engineering judgment. During site audit discussions, the staff was able to trace the basis for the engineering judgments and found that in many cases they were appropriate. It is expected that these situations would not be included in the walkdown report.

There were other situations that a PASC and LBE were not reported; however, the NRC staff found during the audit that a calculation, analysis (more than just simple), or evaluation was conducted but informally. An example is a confirmatory calculation performed to demonstrate that six anchor bolts out of eight was not a seismically adverse condition. Another example would be an analysis to demonstrate that an existing, slightly short weld was as seismically sound as the prescribed weld length in the plant design documentation. The staff expected these types of conditions and evaluations to be captured in the licensee's normal plant

processes (e.g., condition report or corrective action program (CAP)), and also reported in the walkdown report, since they were potentially adverse seismic conditions that required more than applying judgment or simple analysis to address.

The NRC staff also found that the process that was used to deal with a field observation that was deemed to be a PASC was also not completely described or captured in the report. In many cases, the licensee reported that an LBE was not performed. However, during the audits, it was clear that an LBE (or an equivalent determination method) was performed and used in determining whether a PASC should be entered into the CAP. The staff expects that these conditions would be reported in the walkdown report.

On the whole, through the audits, the NRC staff found that it was able to conclude that the intent of the guidance was met when the licensee's overall process was completely explained, the information was updated to reflect the actual process, and results were updated. The self-assessments conducted by the licensees of the audited plants also identified the lapse in the description of the process used by the licensee to identify a PASC and disposition it.

Therefore, in order to clarify the process that was followed, please provide a description of the overall process used by the licensee (and its contractors) to evaluate observations identified in the field by the SWEs. The process should include how a field observation was determined to be a PASC or not and how the bases for determinations were recorded. Once a determination was made that an observation was a PASC, describe the process for creating a condition report (or other tracking mechanism), performing the LBE (or other determination method), and the resultant action, such as entering it into the CAP, or documenting the result and basis.

Also, in order to confirm that the reported information supports concluding that the plant meets the CLB, please follow one of the following three acceptable alternatives:

- (a) Provide a supplement to the table or text from the original walkdown report, if needed, to include similar conditions as the above examples and situations and for conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination. The supplement should include a short description of each condition, how it was dispositioned and the basis for the disposition, as follows: 1) for each condition that was entered into the CAP, provide the CAP reference number, initiation date, and (if known) the planned completion date, or 2) for all other conditions, provide the result of the LBE (or other determination method), the basis for the result, and how (or where) the result was captured in the plant's documentation or existing plant process.*
- (b) Following the plant's standard procedures, confirm that a new CAP entry has been made to verify if appropriate actions were taken when reporting and dispositioning identified PASCs (including conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination). The eventual CAP closeout, including the process followed and actions taken should be in sufficient detail to enable NRC resident inspectors to follow up.*
- (c) If no new conditions are identified for addition to the supplement or the CAP entry mentioned above is deemed not necessary, provide a statement of confirmation that all potentially seismic adverse conditions (including conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination) identified during the walkdowns and walk-bys were addressed and included in the report to the NRC.*

TVA Response

The walkdowns and walk-bys performed at Watts Bar Nuclear Plant (WBN) were conducted in accordance with EPRI 1025286, "Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic" (hereafter "Seismic Walkdown Guidance") and TVA procedure CTP-SWD-100 which included the full scope of the Seismic Walkdown Guidance along with some supplemental TVA specific procedures (i.e. TVA CAP procedures).

The walkdowns and walk-bys were conducted in accordance with the Seismic Walkdown Guideline and each was given a final status. Each walkdown or walk-by was completed by a team of 2 seismic walkdown engineers (SWEs) that met experience and training requirements per the Seismic Walkdown Guidance and were accompanied by operations personnel. Walkdown packages were assembled prior to each walkdown and included the seismic walkdown checklists (SWCs), area walk-by checklists (AWCs), and anchorage verification drawings as necessary.

If no potentially adverse seismic conditions were noted during a walkdown or walk-by, a "YES" status was given to the selected piece of equipment or area. If a potentially adverse seismic condition was noted, a "NO" status was given and a CAP entry was written. If any equipment was inaccessible, or if a portion of an item of equipment was unobservable, an "UNKNOWN" status was given.

The walkdown teams performed the inspections and any questionable observations were compared to the design basis documentation or, in some cases, engineering judgment was used to determine if an observation qualified as a PASC. The engineering judgments were documented on the SWCs and AWCs. Those observations that could not be justified with existing documentation or sound engineering judgment were entered into the WBN CAP. With the assistance of WBN engineering CAP entries were pre-screened into two categories: housekeeping only with no potential impacts to safety related equipment or PASC. The pre-screening was intended to aid in the disposition and correction of the observations.

When a PASC was identified at WBN, the condition was entered into the WBN CAP. No licensing basis evaluations were performed by the walkdown team per TVA expectations to communicate any potential operability concerns as soon as they were identified. All licensing basis determinations were performed by WBN engineering on each CAP entry.

The CAP Process at TVA is defined in TVA NPG Standard Program and Processes SPP-22.300, "Corrective Action Program." The CAP program at all TVA nuclear facilities consists of five key phases:

- Initiation
- Screening
- Analysis
- Implementation
- Monitoring

To confirm that the reported information supports concluding that the plant meets the CLB, TVA submits the following response using acceptable alternative (a) listed above for WBN Unit 1 as described below:

Multiple CAP entries were generated during the seismic walkdown process at WBN. There were a total of eleven CAP entries for Unit 1 that were considered PASCs. These CAP entries and their status are summarized in Table 1. Additionally seven CAP entries were generated to address general housekeeping issues which did not represent PASCs (per the criteria established in the Seismic Walkdown Guidance and EPRI SWE training). These CAP entries and their status are summarized in Table 2. No conditions outside the licensing basis were found during the course of this walkdown process.

**Table 1
Watts Bar Nuclear Plant Unit 1: Potentially Adverse Seismic Conditions**

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
1	WBN-1-TANK-082-0160-A, Diesel Gen Engine 1A1, Start Air Receiver A	During the walkdown for WBN-1-TANK-082-0160-A, it was found that the bottom connection on the south U-bolt connection to the support saddle is not tight to the restraint. On the north U-bolt connection to the support side, the bottom connection is missing the washer.	582519	WBN civil engineering support contractors evaluated the condition and determined the capacity of the starting air tank anchorage, in its current configuration, is sufficient to resist the demand during a design basis earthquake. No further evaluation necessary. Work order scheduled to tighten the U-bolt connection.	06/06/2014	OPEN
2	WBN-WB-001 Diesel Generator 1A-A, Room D104	During the area walk-by for the Diesel Generator Room D104 (WBN-WB-001) a problem with the 1A-A Air Receiver Tank was noted. Of the two inboard anchor plates, the south anchor plate on the tank is installed such that it is resting inside the saddle. This limits its ability to function properly.	582523	WBN civil engineering evaluated the condition and determined that the capacity of the air receiver tank anchorage, in its current configuration, is sufficient to resist the demand during a design basis earthquake. No further evaluation necessary. A work order is scheduled to restore the configuration of the south anchor plate.	06/06/2014	OPEN

Table-1
Watts Bar Nuclear Plant Unit 1: Potentially Adverse Seismic Conditions

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
3	<p>WBN-0-PNL-278-M012, Radiation Monitoring MCR PNL</p> <p>WBN-0-PNL-278-M026A-A, D.G. 1A-A MCR PNL</p> <p>WBN-0-PNL-278-M026D-B, D.G. 2B-B MCR PNL</p>	<p>During the walkdown for WBN-0-PNL-278-M026A-A and WBN-0-PNL-278-M012, it was found that one of the four visible connecting bolts on the south side of the bolted joint between MCR panels WBN-0-PNL-278-M012 and WBN-0-PNL-278-M015 was sheared off and one was missing. Two bolts were missing between panels WBN-0-PNL-278-M012 and WBN-0-PNL-278-M026D-B on the south side.</p>	583573	<p>WBN civil engineering evaluated the condition and determined that the capacity of the panels, in their current configuration, is sufficient to resist the demand during a design basis earthquake.</p> <p>Work order scheduled to repair damaged bolt and replace the missing bolts.</p>	05/23/2014	OPEN
4	<p>WBN-WB-010, ERCW Pump Room A, Room I105</p>	<p>During the area walk-by for room I105 of the Intake Pumping Station (WBN-WB-010) it was found that temporary scaffolding near ERCW pump 0-PMP-67-32 is not adequately restrained to prevent interaction with the pump motor during a seismic event. Lateral restraint was not provided in one direction at a sufficient height to prevent tipping towards the pump motor.</p>	588895	<p>The scaffold was removed from the area and crews briefed on WBN scaffolding construction procedures for general seismic qualification and horizontal restrain requirements.</p>		CLOSED

Table 1
Watts Bar Nuclear Plant Unit 1: Potentially Adverse Seismic Conditions

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
5	WBN-1-MCC-232-B-B, Reactor Vent Board 1B-B	During the walkdown for WBN-1-MCC-232-B-B, it was found that a cap plate on a tube steel cable tray support was in direct contact with a conduit collar on the MCC. The conduit number in question was not legible.	592225	WBN craft performed an additional walkdown of the identified condition and determined that the conduit collar was not in contact with the cable tray support. This was verified by sliding a piece of paper between the conduit collar and the cable tray support. Per WBN civil engineering this is acceptable as long as there is no contact between the tray support and the conduit collar. No further action or evaluation necessary.		CLOSED
6	WBN-WB-030, 480V Board Room 1A, Room A851	During the area walk by in the 480V Board Room 1A (WBN-WB-030) a fire protection sprinkler head deflector was found to be in direct contact with a four inch conduit. The conduit in question is PLC-1709, which runs into 1-JB-282-1770, and is located behind panel 10 of WBN-1-MCC-213- 001-A.	592249	The fire protection piping was rerouted to eliminate the contact between the sprinkler head deflector and the four inch conduit.		CLOSED

Table 1
Watts Bar Nuclear Plant Unit 1: Potentially Adverse Seismic Conditions

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
7	WBN-0-DBD-238-0003, Distribution BD PNL 3 120V AC Preferred	During the walkdown for WBN-0-DBD-238-0003, in the Main Control Room, a copier was observed in close proximity of the breaker side of the panel. The copier is not restrained and does not meet the overturn criteria that would indicate it would be safe from tipping during a seismic event. Additionally, there is a drawing table in the area that is not restrained but would not cause a risk to the panel.	595936	Both the printer and drawing table located in the control room were evaluated by WBN civil engineering per site procedures for temporary equipment control and accepted. No further evaluation or action required.		CLOSED
8	WBN-WB-032, Mechanical Equipment Room 1B, Room A924	During the area walk by in the Mechanical Equipment Room A924 (WBN-WB-032) a sheared anchor bolt was observed on the 480V Board Room Condenser B-B. All remaining anchor bolts appear to be in good condition with only minor to moderate surface corrosion.	596514	WBN civil engineering evaluated the single sheared anchor bolt and determined it does not invalidate the seismic capability of the 480V Board Room Condenser B-B. Work order scheduled to replace damaged anchor bolt.	05/27/2014	OPEN

Table 1
Watts Bar Nuclear Plant Unit 1: Potentially Adverse Seismic Conditions

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
9	WBN-0-CHR-031-0036/2-A, Shutdown Board Room Chiller A-A	During the walkdown for WBN-0-CHR-031-0036/2-A, significant corrosion was observed on the south pedestal baseplate and anchor bolts. The amount of material reduction was approximately 1/8" or less. The north pedestal had significant corrosion as well.	596521	WBN civil engineering evaluated the partial degradation of the 3/4 inch bolt and determined sufficient material exists to meet seismic demand. No further evaluation necessary.	04/28/2014	CLOSED
10	WBN-0-CHR-031-0049/2-B, Shutdown Board Room Chiller B-B	During the walkdown for WBN-0-CHR-031-0049/2-B, significant corrosion was observed on the south pedestal baseplate and anchor bolts. The amount of material reduction was in excess of 1/8". The north pedestal had significant corrosion as well.	596525	WBN civil engineering evaluated the partial degradation of the 3/4 inch bolt and determined sufficient material exists to meet seismic demand. No further evaluation necessary.		CLOSED

Table 1
Watts Bar Nuclear Plant Unit 1: Potentially Adverse Seismic Conditions

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
11	<p>WBN-0-INV-235-0001-D, 120V AC Vital Inverter 0-I</p> <p>WBN-1-INV-235-0003-F, 120V AC Vital Inverter 1-III</p>	<p>During the walkdown for WBN-0-INV-235-0001-D, the spacing tolerance of +/- 3" is violated between the third and fourth anchor bolts on the front of the inverter. The field measured spacing between these bolts is 9-3/4". Per plant documentation, this spacing should be 1'-1-3/16", which is 3-7/16" greater than the as-installed anchor spacing.</p> <p>The as built dimension for one anchor bolt on the front of WBN-1-INV-235-0003-F does not match plant documentation. Per plant documentation, the first anchor spacing on the right side of the cabinet should be 15-5/8". The dimension in the field was measured to be 18-1/4".</p>	597122	<p>WBN civil engineering evaluated the as-constructed configuration and qualified the anchorage spacing as is. Both the design basis calculation and drawings were revised to document the as-constructed configuration. No further evaluation or action required.</p>		CLOSED

Table 2
Watts Bar Nuclear Plant Unit 1: Other (Non-PASC) Walkdown Observations

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
1	WBN-WB-001, Diesel Generator 1A-A, Room D104	<p>1) On the north end of Diesel Generator 1A-A, room D104, pipe support 1082-586-2-2-3 has loose double nuts on one side of the trapeze support, indicating that the support is not properly supporting the pipe as designed.</p> <p>2) On the south end of Diesel Generator 1A-A, room D104, there is a bent finger clamp on the air crosstie pipe between the starting air receivers.</p> <p>3) On the south end of Diesel Generator 1A-A, room D104, a temporary eyewash station is restrained with nylon rope, which is not acceptable per WBN temporary equipment control procedures.</p> <p>4) On the east side of Diesel Generator 1A-A, room D104, the end panel of 1-PNL-82-A/1 is missing approximately 50% on the bolts.</p> <p>5) In the lube oil storage room, prior to entering the Diesel Generator hallway, there are both full and empty 50-gal drums that are not restrained per WBN temporary equipment control procedures.</p>	584046	<p>WBN civil engineering evaluated conditions 1 and 2 and determined the conditions pose no immediate seismic concern.</p> <p>Work order scheduled to correct the identified conditions.</p> <p>3) The eyewash station is exempted from temporary equipment control, and does not pose a seismic threat/risk or other safety concern in its location.</p> <p>4) 1-PNL-82-A/1 is missing 50% of the bolts however the panel is secure and FME is installed on the bolt holes.</p> <p>5) The 50 gallon drums located in the lube oil storage room were properly restrained per WBN temporary equipment control procedures.</p>	06/09/2014	OPEN

Table 2
Watts Bar Nuclear Plant Unit 1: Other (Non-PASC) Walkdown Observations

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
2	WBN-WB-014, Auxiliary Building, 480V Board Room 1B, Room A852	<p>During the walkdown of Auxiliary Building El. 772, 480V Board Room 1B (Room A852), the following issue was observed and noted:</p> <p>A scaffolding support was identified to be in close proximity to a flexible electrical conduit located on the south face of charger cabinet, 0-CHGR-236-1.</p>	588403	The scaffold was modified and there is no longer a concern for potential impact against the flexible conduit.		CLOSED
3	WBN-WB-019, Auxiliary Building, 480V Transformer Room 1B, Room A855	<p>While conducting Seismic walk-downs in the Aux Bldg, EL. 772 in the 480v Transformer Room 1B (Room A855), the following issue was observed:</p> <p>- The top railing of a temporary scaffold was observed to not be very stable.</p>	588404	The top railing was stabilized.		CLOSED

Table 2
Watts Bar Nuclear Plant Unit 1: Other (Non-PASC) Walkdown Observations

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
4	WBN-WB-009 Intake Pumping Station, ERCW Pump Room B, Room 1109	<p>While conducting Seismic walk-downs in the Intake Pumping Station, ERCW Pump Room B, Room 1109, the following issues were observed and noted:</p> <p>1) Two trash cans in area not restrained.</p> <p>2) One trash can is partially obstructing access to a Fire Extinguisher. (This trash can was removed from the immediate vicinity of the fire extinguisher).</p> <p>3) Ladder on floor not properly restrained.</p> <p>4) Temporary rolling scaffolding with wheel stops engaged and tied off with rope which is not allowable per WBN temporary equipment control procedures.</p>	588924	All identified conditions were immediately corrected in compliance with WBN procedures.		CLOSED
5	WBN-WB-008 Auxiliary Building, Elevation 713, Area Bounded by Column Lines A1-T/A5-R	<p>While conducting Seismic walk-downs in the Aux Bldg, El. 713, the following issue was observed:</p> <p>A temporary lifting device adjacent to instrument rack 0-L-155 is restrained with rope to a pipe support which is not allowable per WBN temporary equipment control procedures.</p>	588928	The temporary lifting device was removed from the area.		CLOSED

**Table 2
Watts Bar Nuclear Plant Unit 1: Other (Non-PASC) Walkdown Observations**

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
6	WBN-WB-024, Auxiliary Building, Elevation 737, Spent Fuel Pit Heat Exchanger and Pumps	<p>Housekeeping issues in Spent Fuel Pit Pumps area:</p> <p>1) Job Box not restrained per WBN temporary equipment control procedures near Component Cooling System Thermal Barrier Booster Pumps, CCS TBBPs 2A & B.</p> <p>2) Rolling cart not restrained per WBN temporary equipment control procedures</p> <p>3) 50 Gallon drums with loose chain around base not restrained per WBN temporary equipment control procedures.</p> <p>4) Scaffold storage opposite the Spent Fuel Pit Circulation pumps has items not restrained per WBN temporary equipment control procedures.</p> <p>5) Bulbs burnt out in Spent Fuel Pit area.</p>	592213	<p>1) Job Box removed from the area</p> <p>2) Rolling cart restrained per WBN temporary equipment control procedures.</p> <p>3) 50 Gallon drums restrained per WBN temporary equipment control procedures.</p> <p>4) Scaffold storage opposite the Spent Fuel Pit Circulation pumps restrained per WBN temporary equipment control procedures -</p> <p>5) Bulbs replaced in Spent Fuel Pit area.</p>		CLOSED

**Table 2
Watts Bar Nuclear Plant Unit 1: Other (Non-PASC) Walkdown Observations**

No.	Component ID & Description OR Area Walk-by	Identified Condition	PER	Action Taken	Planned Completion Date	Status
7	WBN-WB-026, Auxiliary Building, Elevation 757, Refueling Room, Room A813	<p>While conducting Seismic walk-downs in the Aux Bldg, El. 757, in the Refueling Room (Room A813), the following housekeeping issues were observed in the immediate area of Aux Control Air Compressor B-B:</p> <p>1) Portable fire extinguisher cart are not properly restrained per WBN temporary equipment control procedures 2) Two (2) portable flammable storage cabinets not properly restrained per WBN temporary equipment control procedures. 3) Four (4) 50-gal drums in area not properly restrained per WBN temporary equipment control procedures. 4) Two (2) 50-gal drums in area not properly restrained per WBN temporary equipment control procedures stored under stairs. 5) Other miscellaneous temporary equipment stored under stairs that are not properly restrained per WBN temporary equipment control procedures.</p>	592215	<p>1) Portable fire extinguisher cart restrained per WBN temporary equipment control procedures. 2) Two (2) portable flammable storage cabinets restrained per WBN temporary equipment control procedures. 3) Four (4) 50-gal drums in area restrained per WBN temporary equipment control procedures. 4) Two (2) 50-gal drums in area restrained per WBN temporary equipment control procedures. 5) Other miscellaneous temporary equipment stored under stairs restrained per WBN temporary equipment control procedures.</p>		CLOSED

RAI 2 Conduct of the Peer Review Process

As a result of the walkdown report reviews, the NRC staff noted that some descriptions of the peer reviewers and the peer review process that was followed were varied and, in some cases, unclear. In some cases, the staff could not confirm details of the process, such as if the entire process was reviewed by the peer review team, who were the peer reviewers, what was the role of each peer reviewer, and how the reviews affected the work, if at all, described in the walkdown guidance.

Therefore, in order to clarify the peer review process that was actually used, please confirm whether the following information on the peer review process was provided in the original submittal, and if not, provide the following.

- (a) Confirmation that the activities described in the walkdown guidance on page 6-1 were assessed as part of the peer review process.*
- (b) A complete summary of the peer review process and activities. Details should include confirmation that any individual involved in performing any given walkdown activity was not a peer reviewer for that same activity. If there were cases in which peer reviewers reviewed their own work, please justify how this is in accordance with the objectives of the peer review efforts.*

Also, if there are differences from the original submittal, please provide a description of the above information. If there are differences in the review areas or the manner in which the peer reviews were conducted, describe the actual process that was used.

TVA Response

A peer review was performed in accordance with the March 12, 2012, 50.54(f) letter and the Seismic Walkdown Guidance. The peer review process involved considerable interaction with the review teams, and was performed throughout all phases of the effort including the following:

- Review of the Structures, Systems, and Components (SSCs) included on the Seismic Walkdown Equipment List (SWEL)
- In-plant walkdown observations and review of completed checklists for the Seismic Walkdowns and Area Walk-Bys
- Review of potentially adverse seismic conditions, utilization of the CAP process, and associated licensing basis evaluations
- Review of submittal report

A summary of the activities performed by the Peer Review Team is shown in Table 3. The listed functions are taken from Section 6 of the Seismic Walkdown Guidance and are consistent with the complete peer review report which is included as Appendix G of the WBN Unit 1, seismic walkdown reports.

Table 3

Activity Description	Activity Performed by Peer Review Team? (YES/NO)	Notes/Comments
Review the selection of the SSCs included on the SWEL	YES	As noted in the Peer Review Report, the peer review team evaluated the SWEL to ensure a diverse sample of the equipment required to perform the five safety functions outlined in Section 4.1, including items previously identified as IPEEE outliers. The peer review team also provided needed clarification regarding equipment class designation for SWEL items (regarding instrument racks, temperature sensors, distribution panels, and medium voltage switchgear).
Review a sample of the checklists (10% to 25% required) prepared for the Seismic Walkdowns and Area Walk-Bys	YES	As noted in the Peer Review Report, in total, the peer review team performed documentation review for over 50% of the checklists completed by the SWEs. Review of the SWCs and AWCs included substantial interface with the SWEs, observation of the SWEs during performance of walkdowns / walk-bys, and independent field investigation of individual equipment components. Peer review team efforts related to this activity are summarized in the Peer Review Report.
Review the licensing basis evaluations	YES	As noted in the Peer Review Report, all potentially adverse seismic conditions were reviewed in detail to address seismic licensing basis and operability issues.
Review the decisions for entering the potentially adverse conditions into the CAP process	YES	As noted in the Peer Review Report, all potentially adverse seismic conditions were reviewed in detail to address seismic licensing basis and operability issues. The peer review team is in full concurrence with the entry of confirmed potentially adverse seismic conditions into the CAP.
Review the submittal report	YES	As noted in the Peer Review Report, the peer review team reviewed the submittal report and is in full concurrence with the documented observations and findings.
Summarize the results of the peer review process in the submittal report	YES	Results of the peer review process are summarized in the Peer Review Report

In summary, the peer review results are confirmatory and fully supportive of the evaluations and findings as described in the WBN Unit 1, walkdown reports. The peer reviews met the intent of the Seismic Walkdown Guidance and were effective in providing technical oversight and review of all required aspects of the process herein described.