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AUG 17 1992

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

Gentlemen:

In the Matter of the Application of	)	Docket Nos. 50-390
Tennessee Valley Authority	)	50-391

WATTS BAR NUCLEAR PLANT (WBN) - EMPLOYEE CONCERNS SPECIAL PROGRAM (ECSP)

In a letter dated April 24, 1992, NRC provided TVA with information concerning employee-identified specific hardware deficiencies which had not previously been made available to TVA. TVA's response dated June 1, 1992, provided NRC the results of a review of the concerns which TVA was immediately able to address. Enclosure 1 lists the concerns addressed in TVA's June 1 letter. In the June letter, TVA committed to review the remaining concerns and provide the results to NRC by August 17, 1992. As a result of resources being shared with other Region II issues, this review has not been completed. Enclosure 2 provides the current review results. Enclosure 3 provides a listing of the remaining concerns. TVA expects to complete the review and provide the results to NRC by November 20, 1992.

If you have any questions, please telephone Paul Pace at (615) 365-1824.

Sincerely,

W. J. Museler

William J. Museler

Enclosures
cc: See page 2

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ENCLOSURE 1
WATTS BAR NUCLEAR PLANT (WBN)
CONCERNS ADDRESSED IN JUNE 1, 1992 LETTER

CONCERN NUMBER	
WBP-85-017-005	
WBP-85-017-006	
IN-86-070-004	
IN-86-070-007	
IN-86-229-003	(Security aspect of this concern only)
OW-85-004-001	
OW-85-004-N02	Enclosure 1, page 3 of the TVA letter dated June 1, 1992, contains a typographical error. Concern Number "OW-85-004-N01" should read "OW-85-004-N02." TVA regrets any inconvenience due to this error.

MR A526823

ENCLOSURE 2
WATTS BAR NUCLEAR PLANT (WBN)
ECSP CONCERN REVIEW MATRIX

CONCERN NUMBER	HARDWARE DEFICIENCY	REVIEW RESULTS
EX-85-034-001	MOV 2-FCV-62-133-B and 2-FCV-62-90-A handwheels continued to turn when electrical test performed.	Significant Corrective Action Report (SCAR) WBP870900SCA tracks the Unit 2 Limitorque operator work. Activities under this SCAR and the Unit 2 Generic Letter GL-89-10 program provide assurance of operability of these valves.
IN-85-085-001	Largest hanger in Unit 1 south valve vault room, under floor grating.	Concern evaluated by Weld Group 33 under Welding Program. No impact from additional information on weld group evaluation.
IN-85-089-003	Unit 1 SG 2&3 blowdown lines from SG to south valve room.	Concern evaluated by Weld Group 210 under Welding Program. A representative sample of 60 was taken to resolve the concerns in this group. No impact from additional information on weld group evaluation.
IN-85-299-003	Unit 1 RHR Pumps, pipe chase EL 692; Unit 2 Tunnel going east outside AB building, 10" dia SS line on south side of wall had excessive shrinkage.	Concern evaluated by Weld Group 6 under Welding Program. No impact from additional information on weld group evaluation.
IN-85-593-001	3/4 inch ERCW socket weld	The generic concern was evaluated by Weld Groups A-L. The specific concern with the 3/4 inch ERCW socket weld was evaluated by a representative sample from Group A. No impact from additional information on weld group evaluation.

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CONCERN NUMBER	HARDWARE DEFICIENCY	REVIEW RESULTS
IN-85-993-001 through 012	A special inspection of the corrective actions on NCR-W-205P was performed. This inspection resulted in the issuance of Discrepancy Report WB-DR-85-75 which identified a significant number of problems with the effective resolution of the NCR deficiencies. The NCR was closed when the problems on the DR were corrected even though the inspection (which resulted in the DR) had only looked at 10% of the corrective actions of the NCR. A number of types of deficiencies related to the NCR which may or may not have been included in the DR are as follows:	
	(1) Lugs crimped with wrong size crimping tool. Then, instead of removing the lug and installing a new one, the existing lugs were recrimped using the correct size crimping tool.	As discussed in the original concern evaluation (ECSP Subcategory Report 10900), construction procedures required safety-related lugs to have a visual verification by QC inspection. Recrimping of lugs was acceptable as long as specified criteria were met. Included was a QC inspection that the recrimp is verified to be equivalent to a proper crimp. As an additional check, various reviews in this area are included in the Program for Assurance of Completion and Assurance of Quality (PAC/AQ), Phase IV.

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WATTS BAR NUCLEAR PLANT (WBN)
ECSP CONCERN REVIEW MATRIX

CONCERN NUMBER	HARDWARE DEFICIENCY	REVIEW RESULTS
IN-85-993-001 through 012 (continued)	(2) Lugs crimped backwards - wire end of the tool used to crimp the insulation end and vice-versa.	As discussed in ECSP Subcategory Report 10900, lugs installed backwards would be deemed unacceptable by a QC inspector and would be rejected and corrected. Likewise, the crimping of lugs incorrectly (backward) would also result in rejection and correction. As an additional check, various reviews in this area are included in the PAC/AQ, Phase IV.
	(4) Quality did not monitor/ inspect for cable pull side wall stress-not required by procedure.	Cable Issues CAP addresses problems associated with cable pulling.
	(5) Quality does not do a final review of work packages before they go into permanent storage. CI knows that some records went to the vault with errors in them.	Individual quality related inspections were performed by quality control inspectors, but some work control procedures did not require final work document review by quality assurance prior to submittal for permanent storage. The Additional Systematic Records Review (ASRR) part of the QA records CAP is performing a sampling of vaulted work documents for record deficiencies.

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ECSP CONCERN REVIEW MATRIX

CONCERN NUMBER	HARDWARE DEFICIENCY	REVIEW RESULTS
IN-85-993-001 through 012 (continued)	(6) Engineering resolution to the deficiencies used previously unapproved methods to accept installation (Example concerning lug installation, a go-no-go 1/8" piece of plexiglass was used to accept insulation cut back). Acceptance criteria were changed after deficiencies were reported in order to accept deficiencies.	An engineering evaluation may be performed to relax criteria which may be more conservative than necessary. The specific example cited concerned a non-critical 1/8" dimension to verify lug engagement. The 1/8" thick plexiglass go-no-go gauge provided an acceptable method of verifying the requirements were met.
	(8) The inspection criteria for inspecting lug installation installed by a maintenance instruction were different than when inspecting a lug installed to a modifications and additions instruction.	This concern does not identify a problem. The maintenance program is different from the modification program in this area. The maintenance instruction did not require QC inspection because instrument mechanics performing the work are certified to the same criteria and perform two-party verification. The Modification instruction requires QC inspection for modification work. As an additional check, various reviews in this area are included in the PAC/AQ, Phase IV.
IN-86-219-001	Small circle placed on bolt head to identify those that had nuts welded on the support plate. El. 737	This issue was investigated extensively as a result of NRC Bulletin 79-02. No impact of additional information on previous evaluation.

ENCLOSURE 2
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ECSP CONCERN REVIEW MATRIX

CONCERN NUMBER	HARDWARE DEFICIENCY	REVIEW RESULTS
PH-85-001-010	In the summer of 1983 there was an inspection performed of bolt tightness on unistrut hangers. The report of the results of this inspection was watered down to the extent that the problem identified never got correctly resolved. Several problems identified:	The additional information does not change the conclusions of ECSP Report 80500. However, resolution of specific items are described and tracked by correction action documents listed below:
	(1) The tightening of fasteners hand tight and then rotating them 1 1/2 turns does not result in the required 4 ft-lbs of torque.	WBP890248SCA NCRW334PSCA WBP880734PER
	(2) Hundreds of bolts were observed that had passed inspection and the pipe in the hanger was free to slide freely inside the hanger.	WBP890248SCA NCRW334PSCA WBP880734PER
	(3) The inspection (in 1983) determined that a high percentage (31 of 81 instrument hangers and 10 of 62 electrical hangers) failed to meet the 4 ft-lb torque requirement, and yet, no additional inspection of hangers or corrective action concerning this deficiency was initiated.	WBP890248SCA NCRW334PSCA WBP880734PER
PH-85-027-006	U1, South Valve vault room	Weld evaluated by Weld Group 12 under the Welding Program. No impact from additional information on weld group evaluation.

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CONCERN NUMBER	HARDWARE DEFICIENCY	REVIEW RESULTS
WBP-85-016-003	Westinghouse "DS" type breakers are configured such as to allow installation of an improper type breaker. Breakers are similar and have same type of plug-in, but different auxiliary contact arrangements.	In the time since the concern was identified, Walkdown Procedure WBPE-WP-37, "Walkdown of Electrical Equipment Data Required for the Electrical Calculations Program" was written to provide instructions for the collection and documentation of field verified data on "as-installed" electrical equipment for use in the electrical calculations. This walkdown data was used to verify breaker configuration and correctness of controlled configuration drawings. This action did not identify any problems associated with the circuit breaker auxiliary contacts. Without additional specific breaker information, TVA considers no further action is required.
WI-85-064-001 WI-85-064-X04 WI-85-064-002 WI-85-064-005 WI-85-064-003	6" & 8" lines in annulus, ERCW, Unit 2 near some sheet metal ducts. Engineers changed the documents in the vault concerning specifications and grade of material (ex 316 or 316L, 304 type). Wrong weld rod used on S/G trusses under generator. Fire Protection Piping butt welded without bevel. Weld washing (cosmetically smoothing a SMAW weld by use of a tungsten arc without filler metal) common all over site.	Concern No. WI-85-064-001 evaluated by Weld Group 233 under the Welding Program for Groups A, B, and C. Concern No. WI-85-064-X04 evaluated by Weld Groups A-L under the Welding Program. Concern No. WI-85-064-005 evaluated by Weld Group 203 under the Welding Program. For Concern Nos. WI-85-064 -002 and WI-85-064-003, the additional information implied that the wrong weld material had been used on the steam generator trusses under the steam generators and that welds had been washed by using gas tungsten arc process without filler metal to smooth welds.

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CONCERN NUMBER	HARDWARE DEFICIENCY	REVIEW RESULTS
WI-85-064-001 WI-85-064-X04 WI-85-064-002 WI-85-064-005 WI-85-064-003 (continued)		Since there are no steam generator trusses, TVA assumes that the concern is with the large beams used for the lower steam generator supports that may have been mistakenly referred to as trusses. The welds on the lower steam generator supports were inspected during construction and documented. This inspection included fit-up verifications, welder verifications, final visual, and magnetic particle examinations. In addition in accordance with QCI-4.01, the welder in order to obtain filler material specified the weld procedure and filler material which was being used on the rod requisition form. This was verified as being the correct material for the procedure before filler material was issued to the welder. A surveillance program in accordance with QCI-4.03 was conducted which in part verified proper filler material. In addition to the above, EG&G performed a representative sample inspection of welds on the steam generator supports as part of special groups 207 and 229. These inspections included visuals and ultrasonic examinations.

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CONCERN NUMBER	HARDWARE DEFICIENCY	REVIEW RESULTS
WI-85-064-001 WI-85-064-X04 WI-85-064-002 WI-85-064-005 WI-85-064-003 (continued)		TVA concludes that the original inspections and the reinspections by EG&G would have detected any problems due to improper filler material being used. The concern about washing of welds does not identify whether this is limited to piping welds or if it applies to structural welds also. TVA assumes it pertains to piping welds since the GTAW process is not normally used on structural welds. The washing of SMAW welds using GTAW without filler would possibly create porosity and cracking particularly on carbon steel due to the burning off of the deoxidizers. The safety-related piping welds at WBN receive a visual and the required code NDE either PT, MT, or RT which would have recognized these indications and corrected them. EG&G sampled both safety and nonsafety-related piping as groups A, B, and C. This sampling included the repeating of the final inspections originally performed on the welds and/or rereviewing the radiographs. TVA concluded that the original inspections and the reinspections performed by EG&G would have identified a wash problem.

ENCLOSURE 3
WATTS BAR NUCLEAR PLANT (WBN)
REVIEW OF CONCERNS INCOMPLETE

CONCERN NUMBER	
HI-85-001-001	
HI-85-103-001	
IN-85-050-002	
IN-85-529-002	
IN-85-682-001	
IN-85-947-003	
IN-85-993-001 through 012 only)	(Items 3 and 7 concerning installation/inspection drawings and labeling respectively)
IN-86-003-001	
IN-86-029-001	
IN-86-076-001	
IN-86-076-X02	
IN-86-229-003	(Fire Protection aspect only)
IN-86-314-005	