

TVA EMPLOYEE CONCERNS
SPECIAL PROGRAM

REPORT NUMBER: MC-40503
-SQN

REPORT TYPE: Sequoyah Nuclear Plant Element
(Final Report)

REVISION NUMBER: 2

TITLE: Valves (Test 70)

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REASON FOR REVISION:

Revised to incorporate Technical Assistance Staff (TAS) and Senior Review Panel (SRP) comments. Revision 1

Revised for minor format and grammar corrections, wording clarification, and the addition of Attachment A. Revision 2

PREPARATION

PREPARED BY:

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CONCURRENCES

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SRP: James R. Russell 10-30-86
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APPROVED BY:

MURKIN 10-31-86
ECSP MANAGER DATE

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MANAGER OF NUCLEAR POWER DATE
CONCURRENCE (FINAL REPORT ONLY)

*SRP Secretary's signature indicates that SRP files contain documentation of full panel concurrence.

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I. Introduction

This evaluation summary consists of one concern EX-85-181-001. This concern was not made generic to Sequoyah Nuclear Plant (SQN) during the Watts Bar Nuclear Plant (WBN) evaluation; however, it was evaluated in the SQN Generic Concern Task Force (GCTF) Evaluation Report, "Component Substitutions" (EX-85-181-001). The GCTF Report was evaluated for adequacy.

II. Summary of Perceived Problems

[On valve inspection (Test 70), Quality Control (QC) verifies the proper valve mark number tag, which is installed by the warehouse or vendor and is often just a paper or metal tag which can be removed or replaced by anyone.] If the valve has been substituted from what the drawing lists, the bill of material does not properly reflect the change. No paperwork is provided to Watts Bar engineering to document that it is an acceptable replacement. Many substitutes have come in from Hartsville, Phipps Bend, and Yellow Creek and are a different type than what the drawing calls for. Check unit 2, steam generator blowdown system as an example. |R2

Only the bracketed portion of the concern was evaluated in this report. The remaining portion of the concern was addressed in WBN Employee Concerns Task Group reports for SQN, MC40200 Purchasing and Requisitioning and MC40300 Installation (use).

This evaluation report addresses the concern from the standpoint of:

- Are mark number tags essential for valve identification at installation?
- If valve mark number tags were to be removed or replaced (switched), are procedures in place to assure that the correct valves are installed?

III. Evaluation Methodology

- A. Reviewed SQN Generic Concerns Task Force (GCTF) Evaluation Report, "Component Substitutions," concern EX-85-181-001, to determine adequacy of findings and conclusions, and to determine if additional information was available. |R2
- B. Reviewed expurgated file to determine if any additional information exists. |

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- C. Interviewed knowledgeable personnel to determine if valve inspection (Test 70) is used by SQN and if valve mark numbers are essential for valve inspection at installation.
 - D. Reviewed Modifications and Additions Instruction, M&AI-1, "Control of Weld Documentation and Heat Treatment," to determine valve installation inspection requirements.
 - E. Reviewed Administrative Instruction AI-19 (Part IV) Plant Modification: After Licensing, Revision 18, to determine criteria used to verify material at installation.

IV. Evaluation Findings

- A. A review of SQN GCTF Evaluation Report, "Component Substitutions," Revision 1, for concern EX-85-181-001 found that "Nuclear Power does not use (Test 70) to verify material installation." Nuclear Quality Assurance Manual (NQAM) Part III, Section 2.5, specifies that it is the responsibility of the user to verify correct identity of material before installation. This is used in conjunction with administrative controls on procurement, material receipt inspection, and buying material out of power stores to assure that the proper Quality Assurance (QA) material is installed during maintenance or modification. | R2
- B. A review of the expurgated files, EX-85-181, revealed no additional information.
- C. An interview with a Modifications Unit engineer revealed that valve installation inspection requirements were governed by M&AI-1, Control of Weld Documentation and Heat Treatment, in which work generating documents (WGD) are initiated. It was also stated that valve mark numbers were not used by the Office of Nuclear Power (ONP) as a means for valve identification upon installation. Valve identification is verified by the use of the valve description information provided by the responsible engineer on the WGD. | R2
- D. An interview with the Assistant Quality Control Supervisor revealed that mark numbers are not used as a means of identifying valves at installation. Valve descriptions are provided on a WGD by the cognizant engineer. The description provided on the WGD is then used by the inspector to perform material verification inspections at installation.

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- E. A review of Modification and Additions Instruction (M&AI-1), Control of Weld Documentation and Heat Treatment, Section 4.0, found it to state that component identification (material identification) shall be completed by the originator/planner previous to the weld being made. Identification shall consist of a brief description, procurement document number/date and other information as known. If the inspector is not satisfied with the description provided, additional information may be added by the inspector. This procedure does not require the use of valve mark numbers for valve installation inspection. |R2
- F. A review of Sequoyah Nuclear Plant - Office of Nuclear Power (SNP-ONP) Administrative Instruction AI-19 (Part IV), Plant Modification: After Licensing, found it to state that all modifications will be worked in the field utilizing workplans as described in this procedure. The procedure did not require the use of valve mark numbers for identification of valve at installation. However, the procedure did require that an equipment description be provided (by the cognizant engineer) which shall be clear enough that anyone performing work on the workplan could find the equipment from the description provided.

Conclusion:

Through review of M&AI-1, AI-19 and interviews with responsible engineering personnel, it was determined that valve mark numbers are not used as a means to identify valves at installation at SQN by the Office of Nuclear Power. The findings of this report are in concurrence with the findings in SQN Generic Task Force Report EX-85-181-001, Revision 1 which addresses the portion of the concern evaluated in this report.

V. Root Cause

Not applicable, no problem validated/substantiated |R2

VI. Corrective Actions

None required

VII. Generic Applicability

This concern was determined to be generic to SQN, Browns Ferry Nuclear Plant (BFN), and Bellefonte Nuclear Plant (BLN) at the concern level (K-form) and was determined to be generic to BLN during this evaluation but was determined not to be generic to BFN. |R2

This concern deals with the use of the WBN Construction Quality Control Procedure, QCP-4.10-9, Valve Installation Inspection (Test 70). Therefore, this concern is determined to be generic to only those TVA Nuclear Plants that are in the construction phase. |R2

VIII. Attachments

Attachment A: Concerns Printout (Identifies relationship to Nuclear Safety and Generic Applicability). |R2
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REFERENCE - ECPS131J-ECPS131C
 FREQUENCY - REQUEST
 ONP - ISSS - RWM

TENNESSEE VALLEY AUTHORITY
 OFFICE OF NUCLEAR POWER
 EMPLOYEE CONCERN PROGRAM SYSTEM (ECP)
 LIST OF EMPLOYEE CONCERN INFORMATION
 SUBCATEGORY: 405 MATERIAL IDENTIFICATION

CATEGORY: MC ADEQUACY OF MATERIAL

CONCERN NUMBER	CAT	SUB CAT	PLT LOC	GENERIC APPL B B S W F L Q B	QTC/NSRS INVESTIGATION REPORT	*P S R	CONCERN DESCRIPTION
EX -85-181-001 T50225	MC	402	HBN	N Y Y Y REPORT		NS	ON VALVE INSPECTIONS (TEST 70), QC VERIFIES THE PROPER VALVE BY THE MARK NUMBER TAG WHICH IS INSTALLED BY THE WAREHOUSE OR VENDOR AND IS OFTEN JUST A PAPER OR METAL TAG WHICH CAN BE REMOVED OR REPLACED BY ANYONE. IF THE VALVE HAS BEEN SUBSTITUTED FROM WHAT THE DRAWING LISTS, THE BILL OF MATERIALS DOES NOT PROPERLY REFLECT THE CHANGE. NO PAPERWORK IS PROVIDED TO WATTS BAR ENGINEERING TO DOCUMENT THAT IT IS AN ACCEPTABLE REPLACEMENT. MANY SUBSTITUTES HAVE COME IN FROM HARTSVILLE, PHIPPS BEND, YE
	MC	403					
	MC	405					

*PSR Codes:

- NS--Nuclear Safety-Related
- SS--Nuclear Safety Significant
- NO--Not Nuclear Safety-Related

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Attachment A