TVA EMPLOYEE CONCERNS SPECIAL PROGRAM

TVA EMPLOYEE CONCERNS REPORT NUMBER: WP-17-SQN

REPORT TYPE: Welding Project

TITLE: Vendor Weld Quality

REVISION NUMBER: 1

REASON FOR REVISION: Added additional information based on NRC comments.

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SIGNATURE	DATE	SIGNATURE	DATE
APPROVED BY:	n de la companya de l	a nagatanan a damatanan ata kanan	
James R Russell	7-28-87	N/A	-
ECSP MANAGER	DATE	MANAGER OF NUCLEAR POWER	DATE
		CONCURRENCE (FINAL REPORT ONLY)	

*SRP Secretary's signature denotes SRP concurrences are in files.

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8708110200 870730 PDR ADDCK 05000327 PDR PDR WELDING PROJECT

GENERIC EMPLOYEE CONCERN

EVALUATICE REPORT

REPORT NUMBER: WP-17-SQN, R1

DATE 07-10-87

SUBJECT: VENDOP WELD QUALITY

CONCERNS CONSIDERED: IN-85-127-001 *IN-85-007-003 IN-85-657-001

*SPECIFICALLY INVESTIGATED BY NSRS IN REPORT I-85-753-WBN

PREPARED	BY La Starling for E.R. SCHOFIELD 7.20-ET	DC, WP
REVIEWED	BY V.E. Rose 7/0/67	, DC, WP
REVIEWED	BY	, QA, WP
REVIEWED	BY	, CEG-H, WELDING
AFPROVED	BY	, PROGRAM MANAGER

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Revision 1 added additional information based on US NRC commitments.

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GENERIC EMPLOYEE CONCERN

SUMMARY SHEET

Keport Number: WP-17-SQN, R1

Report Title: VENDOR WELD QUALITY

I. CONCERNS CONSIDERED: IN-85-127-001 *IN-85-007-003 IN-85-657-001

> *Specifically investigated By NSRS in Report I-85-753-WBN Attachment 2)

II. ISSUES INVOLVED

1. Vendor welds are not of the same quality as TVA field welds.

2. Vendor welds are not inspected in the field.

III. STATEMENT OF CONCERN/ISSUE VALIDITY

Validity: Y_X_, N___, Substantiated: Y_X_, N___.

IV. EFFECT ON HARDWARE AND/OR PROGRAM

None

V. JUSTIFICATION

Vendor welds and equipment are inspected against contract requirements.

VI. RECOMMENDATION AND/OR CORRECTIVE ACTION NEEDED

None

VII. REINSPECTION NEEDED: Y____, N _X .

VIII. ISSUE CLOSURE

By this report.

- IX. ATTACHMENT
 - 1. Text of Employee Concerns
 - 2. NSRS Investigation Report I-85-753-WBN

Page 1 of 1

GENERIC EMPLOYEE CONCERN

Report Number: WP-17-SQN, R1

Report Title VENDOR WELD QUALITY

I. SCOPE OF EVALUATION

This engineering analysis covers the following WBN concerns determined to have possible generic implications at SQN:

IN-85-127-001 *IN-85-007-003 IN-85-657-001

*Specifically investigated By NSRS in Report I-85-753-WBN (Attachment 2)

II. ISSUES ADDRESSED BY CONCERNS

Each concern was analyzed to determine the issues voiced by the concerned individuals. These issues are as follows:

1. Vendor welds are not of the same quality as TVA field welds.

2. Vendor welds are not inspected in the field.

III. CONCERN VALIDITY OR SUBSTANTIATION

NSRS has investigated and substantiated the general condition of vendor welds as they relate to WBN in Report I-85-753-WBN for Employee Concern IN-85-007. The conclusions of this report which are WBN-specific are also applicable to SQN. These conclusions are as follows:

- 1. The employee concerns are substantiated as they relate to the observed general condition of vendor welds.
- A similar problem had been identified, reported, documented, and dispositioned in accordance with applicable QA program requirements at WBN.

Due to the general nature of the concerns and issues voiced by these concerns, the conclusions are applicable to vendor welds in general.

Page 1 of 2

TVA invokes technical and quality assurance requirements in contracts for vendor-supplied materials and equipment by reference to industry codes. These contracts are reviewed to assure that required technical standards and quality assurance requirements are included. Many times the governing codes and standards that control vendor weld quality have requirements which are less stringent than the TVA construction standards in Process Specifications G-29M or G-29C which contain welding quality requirements of ASME, ANSI, and AWS. Vendor-supplied materials and equipment may be source inspected by TVA prior to shipment or shipped without TVA inspection from vendor facilities. This program is outlined in the OC and NO QA Programs, as applicable. When source inspection is required, it is performed by TVA Vendor Surveillance personnel to determine compliance with code, standard, and contract requirements. Items not required to be source inspected are inspected when they are received at the site to determine compliance with code, standard, and contract requirements.

Additionally, for concerns IN-85-127-001 (Bergen-Patterson) and IN-85-657-001 (YUBA) based on reviews of Procurement Quality Assurance Branch (PQAB) contract listings and discussions with the Procurement Branch neither Bergen-Patterson or YUBA were awarded contracts for SQN construction components.

In summary, both the field and vendor welds are required to meet applicable code requirements. TVA field welds are visually inspected to a more conservative interpretation of code requirements relating to visual weld attributes. The final appearance of TVA field welds is generally superior to vendor-supplied equipment.

The issue concerning vendor welds not being inspected is not substantiated due to the vendor surveillance program and receipt inspection programs.

The effect on the hardware is of no consequence because the materials and equipment are inspected in accordance with contract requirements.

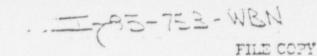
Based on the foregoing analysis, the issues considered in these concerns are closed.

Page 2 of 2

03/24/85	CEMPLOYEE CO	INCERNSO	Attachment 1 PAGE 1 of 1
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TECHNICAL COMMENTARY:	the states	¥ * • • •	
ISSUE CONSIDERED: VENDOR WELD: LOC SIATUS RESP -OTC- 753 NSRS JO	PPP DER IN	THE SAME DUALITY SP TCCDN SR IN-85-007	CERN PROBLEM
KEYWORDS, VENDOR WELD DUALITY	NDNSPECIFIC		X: W Y: C Z: N
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(INICAL COMMENTARY:			
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KEYWORDS: VENDOR CRITERIA DIF	FERENCES		X: W Y: C Z: N
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TECHNICAL COMMENTARY:			-

ISSUE CONSIDERED: VENDOR WELDS ARE NOT OF THE SAME QUALITY AS TVA WELDS.

Attachment 1 Page 1 of 8



TENNESSEE VALLEY AUTHODITY

UNITED STATES GOVERNMENT

emorandum

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1- 1			and d .	
То	:	Craven Crowell, Director of Information, E12A4 C-K Attachment :		
FROM	:	K. W. Whitt, Director of Nuclear Safety Review Staff, E3A8 C-K	8	
DATE	:	JAN 1 4 1986		
SUBJE		REPORTS SUBMITTAL FOR "NUCLEAR SAFETY UPDATE"		

Attached is one copy each of the following final reports of investigation or evaluation of employee concerns for your use, summarization, and publication in Nuclear Safety Update. All have been reviewed and accepted by NSRS.

Concern No.	Investigation Performed by	Concern No.		Investigation Performed by
IN-85-001-005	NSRS			
IN-85-007-003	NSRS			
IN-85-278-002	NSRS			
IN-85-955-001	NSRS			Construction and the second
IN-86-064-001	· NSRS			Banda and A Antoine and Energy of Stronger Generation
IN-86-200-003	NSRS			
IN-86-221-001	NSRS			An ann an ann ann ann ann ann ann ann an
IN-86-305-002	NSRS	41 ···	÷.	87000000000000000000000000000000000000
PH-85-038-001	NSRS	Were some on a construction of the constructio		annen ande sennen den allen allen allen etter en
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-K. W. Whitt

Date

Name

Attachments

Please acknowledge receipt by signing, copying, and returning this transmittal form to J. T. Huffstetler at E3B37 C-K.

C FREE

cc: R. P. Denise, LP6N35A-C D. R. Nichols, E10A14 C-K QTC /ERT, CONST-WBN E. K. Sliger, LP6N48A-C

Attachment 1 Page 2 of 8

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TENNEBSEE VALLEY AUTHORITY

NUCLEAR BAFETY REVIEW STAFF in the state of the second in the state NERS INVESTIGATION REPORT ND. I-85-753-WEN

EMPLOYEE DONCERNS IN-85-001-005 AND IN-85-007-003 MILESTONE 6

VENDOR WELDING

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DATES OF INVESTIGATION: November 12, 1985

INVESTIGATOR:

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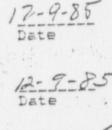
APPROVED BY:

Tu C. Catlin

D. Smith

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M. A. Harrison



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. BACKGROUND

NSRS conducted an investigation regarding two employee toncerns received by Quality Technology Company (QTC). Concern IN-85-001-005 received on Dotober 15. 1985 stated: "Vendor welds were bought off even though the exhibited 'shoddy workmanship'." The allegation was nonspecific. Concern IN-85-007-003 received June 10. 1985 stated: "General look ove vendor welds should be performed. Vendor welds are not inspected at WENF 1 or 2. They are easily distinguishable from field welds because of the bad quality of the vendor welds. Vendor welds jould not pass th same acceptance. . . " This allegation was also nonspecific. During the course of the investigation a similar concern was noted; i.e., IN-85-372-001. This concern had been investigated by the Dffice of Construction and closed out by QTC.

II. SCOPE

B.

The scope of the investigation included attempts to find-a more specif example of the allegation and to track the example to its conclusion. GTC could provide no additional information other than to verify that the concerns were similar to IN-85-372-001.

III. SUMMARY OF FINDINGS

A. Requirements and Commitments

The nonspecific nature of the allegations rendered all requirement and commitments indeterminate.

Findings

- 1. Employee Concern IN-85-372-001 cited manway hatch covers as a specific example of substandard vendor welds.
- 2. NDR 6341 was written on September 25, 1985 which defined the nonconforming condition as: "Contractor welds for stiffener plates on hatch covers appear to not meet requirements of AWS D1.1. Welds appear to be undersized in places and have under and overlap. Reference employee concern IN-85-372-001."
- 3. NDRs 6345 and 6345A were written on September 25 and 26, 1985 covering Units 1 and 2, respectively. The nonconforming condition noted on the NDRs was similar to that of NDR 6341.
- 4. A statement was issued on Employee Concern IN-85-372-001 which stated in part that OC agreed that these welds were not of the quality expected of TVA personnel and that the contractor well for stiffener plates on these hatch covers did not appear to meet the requirements of AWS D1.1 and also that the welps appeared to be undersized in places and have undercut and overlap. These were structural attachment welds which were r part of the reactor primary containment; and, therefore, they did not require a leak tightness test.
 - 5. Disposition of all three NCRs by Engineering was to "use as : in accordance with memorandum E26 851018 007.

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- CONCLUSIONS AND RECOMMENDATIONS
 - A. Conclusions
 - 1. The objective evidence of a similar employee concern substantiated the observed allegation of both concerned individuals (CI).
 - 2. A typical case of a similar problem had been identified, reported, and documented in accordance with applicable procedures. Disposition was to "use as is."
 - 3. Specific conclusions regarding these nonspecific allegations could not be reached.

B . <u>Recommendations</u>

None.

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Tin. Strake

Attachment 1 Page 5 of 8

EMPLOYEE CONCERN DISPOSITION REPORT

CONCERN NO. IN-85-001-005

DATE OF PREPARATION: 1-9-86

CONCERN: Vendor welds were bought off even though they exhibited "shoddy workmanship".

INVESTIGATION PERFORMED BY: TVA NSRS

4 . . .

FINDING(S): See investigation report.

CORRECTIVE ACTION(S): Similar problem was identified, reported and documented in accordance with applicable procedures. Disposition was to "use as is".

CLOSURE STATEMENT: This concern was substantiated.

Attachment 1 Page of 8

EMPLOYEE CONCERN ASSIGNMENT REQUEST

Ac

To: Director - NSRS TRANSMITTAL NUMBER T50011 ERT has received the Employee concern identified below, and has assigned the indicated category and priority: Priority: 1 Concern # IN-85-007-003 Category: 05 Confidentiality: YES NO (I & H)

Supervisor Notified: ____YES _X_ NO NUCLEAR SAFETY RELATED YES_

Concern: GENERAL LOOK OVER VENDOR WELDS SHOULD BE PERFORMED. VENDOR WELDS ARE NOT INSPECTED AT WENP 1 OR 2. THEY ARE EASILY DISTINGUISHABLE FROM FIELD WELDS BECAUSE OF THE BAD QUALITY OF THE VENDOR WELDS. VENDOR WELDS WOULD NOT PASS THE SAME ACCEPTANCE

MANAGER, ERT

NSRS has assigned responsibility for investigation of the above concern to:

ERT NSRS/ERT NSRS ...

OTHERS (SPECIFY

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FONAL.

REQUEST FOR REPORTABILITY EVALUATION

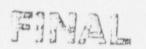
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1. Re	quest No. <u>IN-85-001-005</u> (ERT Concern No.) (ID No., if reported)
3. De	entification of Item Involved: <u>VENDDR WELDS</u> (Nomenclature, system, manuf., SN, Model, etc.) scription of Problem (Attach related documents, photos,
SK	etches,etc.) NDOR WELDS WERE BOUGHT OFF EVEN THOUGH THEY EXHIBITED SHODDY
- Arrest	
WD	RKMANSHIP.
4. Re	ason for Reportability: (Use supplemental sheets if necessary)
А.	This design or construction deficiency, were it to have remained uncorrected, could have affected adversely the safety of operations of the nuclear power plant at any time throughout the expected lifetime of the plant.
	No X Yes If Yes, Explain:
• В.	AND This deficiency represents a <u>significant</u> breakdown in any portion of the quality assurance program conducted in accordance with the requirements of Appendix B.
	No X Yes If Yes, Explain:
	DR
С.	This deficiency represents a <u>significant</u> deficiency in final design as approved and released for construction such that the design does not conform to the criteria bases stated in the safety analysis report or construction permit.
	NoX Yes If Yes, Explain:
p,	

ERT Form M



Attachment 2 Page 8 of 8

REQUEST FOR REPORTABILITY EVALUATION

D. This deficiency represents a significant deficiency in construction of or significant damage to a structure, system or component which will require extensive evaluation, extensive redesign, or extensive repair to meet the criteria and bases stated in the safety analysis report or construction permit or to otherwise establish the adequacy of the structure, system, or component to perform its intended safety function. No. X Yes If Yes, Explain:

E. This deficiency represents a significant deviation from the performance 'specifications which will require extensive evaluation, <u>extensive</u> redesign, or <u>extensive</u> repair to establish the adequacy of the structure, system, or component to perform its intended-safety function. No X Yes If Yes, Explain:

IF ITEM 4A, AND 4B OR 4C OR 4D OR 4E ARE MARKED "YES", IMMEDIATELY HAND-CARRY THIS REQUEST AND SUPPORTING DOCUMENTATION TO NERS.

This Condition was Identified by: 0192 Rubsel ERT Group Manager

AJERT Project Manager

Acknowledgment of receipt by NSRS

OR

Date 1-13-86 Time