

WELDING PROJECT  
GENERIC EMPLOYEE CONCERN  
EVALUATION REPORT

WP-11-SQN

SURFACE GRINDING OF WELDS

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WELDING PROJECT  
GENERIC EMPLOYEE CONCERN  
EVALUATION REPORT

REPORT NUMBER: WP-11-SQN,R1

DATE 08-26-86

SUBJECT: SURFACE GRINDING OF WELDS

CONCERNS CONSIDERED: IN-85-282-002  
IN-85-271-001

PREPARED BY R.M. Bateman 8/25/86, OC, WP

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REVIEWED BY R.D. Lynskey 8/25/86, QA, WP

REVIEWED BY J.E. Martin 9/3/86, CEG-H, WELDING

APPROVED BY W.R. Brown 9/3/86, PROGRAM MANAGER

Revision 1 expanded the discussion on the removal of non-relevant indications and surface conditioning to incorporate the Senior Review Panel comments on 8/19/86.

GENERIC EMPLOYEE CONCERN

SUMMARY SHEET

Report Number: WP-11-SQN R1

Report Title: SURFACE GRINDING OF WELDS

I. CONCERNS CONSIDERED: IN-85-282-002  
IN-85-271-001

II. ISSUE INVOLVED

1. Grinding of weld (surfaces) may mask surface defects.

III. STATEMENT OF CONCERN/ISSUE VALIDITY

Validity: Y\_\_\_\_\_, N X\_, Substantiated: Y\_\_\_\_\_, N X\_.

IV. EFFECT ON HARDWARE AND/OR PROGRAM

None

V. JUSTIFICATION

Grinding is an acceptable method of surface conditioning for welds.

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 The Employee Concerns

## GENERIC EMPLOYEE CONCERN

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### I. SCOPE OF EVALUATION

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

IN-85-282-002

IN-85-271-001

### II. ISSUES ADDRESSED BY THE CONCERNS

The concerns were analyzed to determine the issue voiced by the concerned individuals. This issue is as follows:

Grinding of welds may mask surface defects.

### III. CONCERN VALIDITY OR SUBSTANTIATION

The ASME B&PV Code, AWS, and ANSI Codes which govern the installation of welded features of nuclear plants contain provisions for weld repair. These codes and standards were reviewed to determine if grinding of welds is acceptable.

The AWS D.1.1 Structural Welding Code, Section III, Subsection NB, ASME B&PV Code, and ANSI B31.7, "Nuclear Power Piping," were reviewed. In all cases, grinding or mechanical means (a term which implies grinding) are specifically referenced as acceptable methods for defect removal. ASME Section V, "Nondestructive Examination," also mandates the use of conditioning methods (a term which implies grinding) as a preparatory step for radiographic and ultrasonic inspection. Additionally, Section V directly specifies grinding as an acceptable surface preparatory step for magnetic particle and liquid penetrant inspection.

Surface conditioning and/or cosmetic grinding is frequently performed so subsequent NDE inspections will be simpler and make subsequent evaluations easier to interpret. For surface indications that are of a minor nature, it is more expedient to perform cosmetic grinding or surface conditioning to remove the indications than to perform evaluations to determine if the indications are non relevant.

In summary, the issue considered in this concern is not substantiated due to the fact that grinding is an acceptable practice.

This issue is closed based on this report.



(EMPLOYEE CONCERNS)

04/02/86

17:31:27

LOC	STATUS	RESP	-QIC-	PPP	CFR	INSP	TC	-----CONCERN-----	PROBLEM
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		ERT					SR	IN-85-282-002	WCMCU

X: W Y: C Z: N

KEYWORDS: INSPECTION PROGRAM CRITERIA SUR PR

UNTIL RECENTLY, TVA WELD INSPECTORS REQUIRED ALL PIPE WELDS TO BE SURFACE GROUND TO A SMOOTH FINISH. THE CONCERN IS THAT SMOOTH GRINDING MAY ACTUALLY MASK A SURFACE DEFECT WHICH WOULD OTHERWISE BE DETECTABLE. NO FURTHER DETAILS WERE AVAILABLE.

TECHNICAL COMMENTARY:

ISSUE CONSIDERED: SURFACE GRINDING OF WELDS.									
LOC	STATUS	RESP	-QIC-	PPP	CFR	INSP	TC	-----CONCERN-----	PROBLEM
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		ERT	XO				SR	IN-85-271-001	WCDPW

X: W Y: C Z: N

KEYWORDS: INSPECTION PROGRAM CRITERIA SUR PR

WELDS BEING GROUND DOWN THROUGHOUT UNIT II TO SATISFY THE INSPECTORS. THE PRIMARY CONCERN AT THE PRESENT TIME IS FOR THE WELDS TO "LOOK PRETTY". NO SPECIFIC LOCATION GIVEN.

TECHNICAL COMMENTARY:

ISSUE CONSIDERED: SURFACE GRINDING OF WELDS.