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CALCULATION OF ASME CODE COVERAGE FOR SECTION XI, APPENDIX VIII ULTRASONIC EXAMINATIONS

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Attachment 4 (Page 1 of 1)

AUSTENITIC PIPING WELDS SINGLE SIDE ACCESS - SUPPLEMENT 2

Required and obtained examination volume coverage work sheet

Below is a typical example of examination coverage plots although are not to be considered inclusive of all situations.

Typical example of a single sided access examination of an austenitic piping weld, examination credit can not be taken beyond the weld centerline when the beam is directed through the weld material. Although examinations are required to be performed with the ultrasonic beam directed through the weld material, however they can not be considered totally effective or creditable.

Note: Typically a one-sided austenitic weld examination with no circumferential restrictions would be indicated as 75% examination coverage or 50% if circumferential scans were limited to one side.





	$\qquad Weld \# RCW-02 \qquad W=1.4 H=.7 M=1.4 H=.7 H=.7 M=1.4 H=.7 H=.7 H=.7 H=.7 H=.7 H=.7 H=$	1 = 40
ltem	Description	Value
	REQUIRED EXAMINATION VOLUME	
1	Required examination volume in sq in. (width x height) for single scan stroke	.98
2	Number of scan directions (normally 4; i.e. upst,dnst, cw, & ccw))	4
3	Total scan volume in sq inches (Item 1 * Item 2)	3.92
4	Total length of weld	40
5	Total required examination volume in cubic inches (Item 3 * Item 4)	156.80
	OBTAINED EXAMINATION VOLUME	
6	Examination volume achieved (sq in for single scan stroke) in 1 axial scanning direction (i.e. upst) multiplied by the length of weld examined	Ð
7	Examination volume achieved (sq in for single scan stroke) in 1 axial scanning direction (i.e. dnst) multiplied by the length of weld examined	25.2
8	Examination volume achieved (sq in for single scan stroke) in 1 circumferential scanning direction (i.e. cw) multiplied by the length of weld examined	19.6
9	Examination volume achieved (sq in for single scan stroke) in 1 circumferential scanning direction (i.e. ccw) multiplied by the length of weld examined	19.6
10	Determine the achieved examination volume by adding Items 6, 7, 8. and 9	64.4
11	Examination volume percentage [(Item 10 / item 5) X 100]	(41)=419

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