



REPORT OF ULTRASONIC EXAMINATION OF WELDS
AS PER ANSI / AWS D1.1 2008
ULTRASONIC ACCEPTANCE-REJECTION CRITERIA FOR STATICALLY LOADED NONTUBULAR CONNECTIONS

JOB No.: 06-0726.2

REPORT No.: QAL-08-2195

PROJECT: MARRIOTT MOTEL PORTLAND, ME

WELD IDENTIFICATION: C-4 WEST TOP

WELDING PROCESS: SMAW

MATERIAL THICKNESS: .500

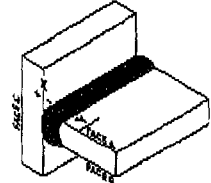
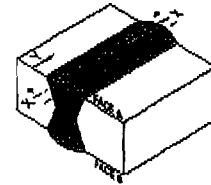
QUALITY REQUIREMENTS-SECTION No.:

WELD JOINT AWS: TEE

REMARKS:

INSPECTOR: Scott Dyer

DATE: 10/17/2008



MINIMUM ACCEPTANCE LEVELS (DECIBELS)

DISCONTINUITY SEVERITY CLASS	WELD THICKNESS* IN INCHES AND MILLIMETERS AND SEARCH UNIT ANGLE											
	5/16" TO 3/4"		3/4" TO 1 1/2"		>1 1/2" TO 2 1/2"			>2 1/2" TO 4"			>4" TO 8"	
	8 TO 20	>20 TO 38	>38 TO 85			>85 TO 100			>100 TO 200			
	70°	70°	70°	60°	45°	70°	80°	45°	70°	80°	45°	
CLASS A	≤+5	≤+2	≤-2	≤+1	≤+3	≤-5	≤-2	≤0	≤-7	≤-4	≤-1	
CLASS B	+8	+3	-1 0	+2 +3	+4 +5	-4 -3	-1 0	+1 +2	-6 -5	-3 -2	0 +1	
CLASS C	+7	+4	+1 +2	+4 +5	+6 +7	-2 +2	+1 +2	+3 +4	-4 +2	-1 +2	+2 +3	
CLASS D	≥+8	≥+5	≥+3	≥+6	≥+8	≥+3	≥+3	≥+5	≥+3	≥+3	≥+4	

SCANNING LEVEL

SOUND PATH DISTANCE in. (mm)	≤ 2 1/4" (65)	> 2 1/4" to 6" (65-125)	> 6" to 10" (125-250)	> 10" to 15" (250-380)
ABOVE ZERO REFERENCE (dB)	14	19	29	39

LINE NUMBER	INDICATION NUMBER	TRANSDUCER ANGLE	FROM FACE	LEG (HALF SKIP)	DECIBELS				DEFECT (mm)					DISCONTINUITY EVALUATION	REMARKS
					INDICATION LEVEL	REFERENCE LEVEL	ATTENUATION FACTOR	INDICATION RATING	LENGTH	ANGULAR DISTANCE (SOUND PATH)	DEPTH FROM "A" SURFACE	DISTANCE			
												FROM X	FROM Y		
1	1	70	1.70	2	69.6	61.7	1.80	6	2.25"	1.90	.350	0	5.0"	CLASS B	
2															
3															
4															
5															
6															
7															

Notes:

- Class B and C discontinuities shall be separated by at least 2L, L being the length of the longer discontinuity, except that when two or more such discontinuities are not separated by at least 2L, but the combined length of discontinuities and their separation distance is equal to or less than the maximum allowable length under the provisions of Class B or C, the discontinuity shall be considered a single acceptable discontinuity.
- Class B and C discontinuities shall not begin at a distance less than 2L from weld ends carrying a primary tensile stress, L being the discontinuity length.
- Discontinuities detected at "scanning level" in the root face area of complete joint penetration double groove weld joints shall be evaluated using an indicating rating of 4 dB more sensitive than described by d-a-b-c when such welds are designed as "tension welds" on the drawing (subtract 4 dB from the indication rating "d").
- Electroslag or electrogas welds: discontinuities detected at "scanning level" which exceed 2" (50 mm) in length shall be suspected as being piping porosity and shall be further evaluated with radiography.
- Indications that remain on the display as the search unit is moved may be indicative of planar discontinuities with significant through-throat dimension and shall be subjected to a more detailed evaluation by other means (e.g., alternate ultrasonic techniques, radiography, grinding or gouging for visual inspection, etc.).

* Weld Thickness shall be defined as the nominal thickness of the thinner of the two parts being joined.

- CLASS A (Large Discontinuities) Any indication in this category shall be rejected, regardless of length.
- CLASS B (Medium Discontinuities) Any indication in this category having a length greater than 1/2" (20 mm) shall be rejected.
- CLASS C (Small Discontinuities) Any indication in this category having a length greater than 2" (50mm) shall be rejected.
- CLASS D (Minor Discontinuities) Any indication in this category shall be accepted, regardless of length or location in the weld.