

NOZZLE ID	THICKNESS RANGE OF OVERLAY	OVERLAY WIDTH	INDICATION NUMBER	INDICATION TYPE	UT MEASURED DEPTH FROM OUTSIDE SURFACE TO CENTER OF FLAW IND.	UT MEASURED LENGTH OF FLAW INDICATION MEASURED ON OD SURFACE	UT MEASURED POSITION OF FLAW INDICATION FROM REFERENCE MARK (As Marked on Sketches)	UT MEASURED CIRCUMF. POSITION OF FLAW INDICATION IN INCHES FROM 0 REFERENCE POINT (See Note 2)	UT MEASURED HEIGHT OF FLAW IND.	AVERAGE THICKNESS OF OVERLAY AT LOCATION OF FLAW INDICATION (See Note 4)	UT MEASURED WIDTH OF LAMINAR FLAW IND.	INDICATION DISPOSITION					FLAW INDICATION INCLUDED IN REPAIR EXCAVATION AREA	REMARKS	
												Laminar Dimensions per Table IWB-3514-3 (Square in.)	<10% Reduction In Coverage Per Appendix Q Q-4100(c)(2)	Flaw Propagation in outer 25% of underlying weld/ base metal Per Appendix Q, Q-4200(b)	IWB-3514-2 Preservice Examination	IWB-3514-2 Inservice Examination for assumed flaws			IWB-3640 Eval. for assumed flaw Per Appendix Q Q-4100(c)(3)
SURGE PN-01	0.70" - 1.12"	14.5	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	N/A	N/A	No Indications found in outer 25%	Acceptable	N/A	N/A	No repair required.	None.
SPRAY PN-02	0.29" - 0.91"	8.95	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	N/A	N/A	No Indications found in outer 25%	Acceptable	N/A	N/A	No repair required.	None.
PORV PN-03	0.47" - 0.81"	9.2	1	Laminar	0.28	3.90	7.11	-4.10	N/A	0.70	0.45	Acceptable: 1.60" vs. 7.50" allowable	Acceptable: DM Weld No RiC SS Weld Circ.: 2.30% Max. Axial: 2.04% Max.	No Indications found in outer 25%	Acceptable	Acceptable: Circ.: 6.4 Act. vs. 11.1 Allowable Unacceptable: Axial: 28.6 Act. vs. 12.3 Allowable	Acceptable: Act. 2a/t= 0.57 Allowable 2a/t per C-5410-1 = 0.75	No repair required.	Assumed flaw below laminar indication acceptable per IWB-3640 evaluation.
SAFETY A PN-04	0.28" - 0.95"	10.4	1	Laminar	0.27	3.40	3.05	-4.10	N/A	0.76	0.45	Acceptable: 1.40" vs. 7.50" allowable	Acceptable: DM Weld Circ.: 0.54% Max. Axial: 0.77% Max. SS Weld No RiC	No Indications found in outer 25%	Acceptable	Acceptable: Circ.: 5.1 Act. vs. 11.1 Allowable Unacceptable: Axial: 26.1 Act. vs. 12.3 Allowable	Acceptable: Act. 2a/t= 0.52 Allowable 2a/t per C-5410-1 = 0.75	No repair required.	Assumed flaw below laminar indication acceptable per IWB-3640 evaluation.
			2	Laminar	0.25	1.05	4.85	-5.90	N/A	0.71	0.35	Acceptable: 0.30" vs. 7.50" allowable		Acceptable	Acceptable: Circ.: 4.4 Act. vs. 11.2 Allowable Unacceptable: Axial: 13.3 Act. vs. 11.9 Allowable	Acceptable: Act. 2a/t= 0.27 Allowable 2a/t per C-5410-1 = 0.75	No repair required.	Assumed flaw below laminar indication acceptable per IWB-3640 evaluation.	
SAFETY B PN-05	0.42" - 0.90"	10.7	1	Laminar	0.27	2.50	4.25	6.00	N/A	0.79	0.50	Acceptable: 1.20" vs. 7.50" allowable	Acceptable: DM Weld Circ.: 1.69% Max. Axial: 1.65% Max. SS Weld No RiC	No Indications found in outer 25%	Acceptable	Acceptable: Circ.: 5.5 Act. vs. 11.0 Allowable Unacceptable: Axial: 20.0 Act. vs. 11.9 Allowable	Acceptable: Act. 2a/t= 0.40 Allowable 2a/t per C-5410-1 = 0.75	No repair required.	Assumed flaw below laminar indication acceptable per IWB-3640 evaluation.
SAFETY C PN-06	0.45" - 0.90"	10.2	1	Laminar	0.56	3.50	8.00	4.60	N/A	0.74	0.45	Acceptable: 1.30" vs. 7.50" allowable	Acceptable: DM Weld Circ.: 5.68% Max. Axial: 6.53% Max. SS Weld Circ.: 1.26% Max. Axial: 1.52% Max.	No Indications found in outer 25%	Acceptable	Acceptable: Circ.: 8.8 Act. vs. 11.1 Allowable Acceptable: Axial: 8.1 Act. vs. 11.5 Allowable	N/A	No repair required.	None.
			2	Laminar	0.18	4.9 (Combined)	5.30	9.00	N/A	0.69	1.10 (Combined)	Acceptable: 3.80" vs. 7.50" allowable (Combined)		Acceptable	Acceptable: Circ.: 5.8 Act. vs. 11.2 Allowable Unacceptable: Axial: 18.8 Act. vs. 12.2 Allowable	Acceptable: Act. 2a/t= 0.38 Allowable 2a/t per C-5410-1 = 0.75	No repair required.	Flaw 2 combined with Flaw 3. Assumed flaw below laminar indication acceptable per IWB-3640 evaluation.	
			3	Laminar	0.47		4.55	6.20	N/A	0.74			Acceptable	Acceptable: Circ.: 8.1 Act. vs. 11.1 Allowable Unacceptable: Axial: 17.6 Act. vs. 12.0 Allowable	Acceptable: Act. 2a/t= 0.35 Allowable 2a/t per C-5410-1 = 0.75	No repair required.	Flaw 3 combined with Flaw 2. Assumed flaw below laminar indication acceptable per IWB-3640 evaluation.		
			4	Laminar	0.30	3.25 (Combined)	4.30	-6.00	N/A	0.76	1.50 (Combined)	Acceptable: 3.40" vs. 7.50" allowable (Combined)		Acceptable	Acceptable: Circ.: 9.9 Act. vs. 11.1 Allowable Unacceptable: Axial: 23.0 Act. vs. 12.0 Allowable	Acceptable: Act. 2a/t= 0.46 Allowable 2a/t per C-5410-1 = 0.75	No repair required.	Flaw 4 combined with Flaw 6. Assumed flaw below laminar indication acceptable per IWB-3640 evaluation.	
			6	Laminar	0.18		3.30	-6.50	N/A	0.88			Acceptable	Acceptable: Circ.: 5.7 Act. vs. 10.9 Allowable Acceptable: Axial: 5.7 Act. vs. 11.1 Allowable	N/A	No repair required.	Flaw 6 combined with Flaw 4.		
			5	Laminar	0.47	0.70	8.45	-3.40	N/A	0.79	0.45	Acceptable: 0.30" vs. 7.50" allowable		Acceptable	Acceptable: Circ.: 9.5 Act. vs. 11.4 Allowable Acceptable: Axial: 4.4 Act. vs. 11.2 Allowable	N/A	No repair required.	None.	

NOTES:	1	All flaw indications are in the circumferential direction.	ABBREVIATIONS	RiC - Reduction in Coverage
	2	Zero reference point for circumferential dimensions are top dead center of weld for Relief, Safety. The surge and spray was the adjacent elbow extrados. Minus (-) dimensions are counter clockwise direction.		DM - Nozzle to Safe-End Weld
	3	The Nominal diameters of the components are as follows: Safeties/PORV: 6.0", Spray 4.0", Surge: 14.0".		SS- Safe End to Pipe Weld
	4	Measured from the weld overlay OD surface perpendicular to the pipe axis to the weld overlay/base metal interface using the nearest cross-section profile.		Circ. - Circumferential
	5	Dimensions for the "thickness range of overlay" and "overlay width" columns determined by measurements taken from overlay weld contours.		