

**FORM QEXP-2 SUGGESTED FORMAT FOR TUBE-TO-TUBESHEET EXPANDING
PROCEDURE QUALIFICATION RECORD FOR TEST QUALIFICATION (TEPQR)**

Company name _____

Procedure Qualification Record number _____ Date _____

TEPS no. _____

Expanding process(es) _____
(Rolling, hydroexpanding, explosive expanding, hybrid expanding)

Driver types _____
(Electric, air-driven, hydraulic, other)

Expanded tube length _____
(If there is a gap in the expanded zone, record the total expanded length)

Tube pitch _____

Joints (HH-7)

Sketch of Test Array

Tubesheet Material(s)

Material spec. _____ Type or grade _____

Diameter and thickness of test specimen _____ Hole diameter and pitch arrangement _____

No. and location of joints to be tested _____

No. and description of annular grooves _____

Hole surface finish _____

Yield stress (from mill test report) _____

Other _____

Testing Apparatus

(Manufacturer, type, calibration date)

Rate of loading to avoid impact _____
[Maximum 1/2 in. (13 mm) per minute]

Tube Material(s)

Material spec. _____ Type or grade _____

Diameter and thickness (min./avg.) _____

Yield stress (from mill test report) _____

Other _____

FORM QEXP-2 (Back)

Shear Load Test (See Appendix A, Fig. A-3)

Tube No.	Position in Array	Diameter	Thickness	Cross-Sectional Area	Test Temp.	L_1 (test)	Manner of Failure
Tube No.	Position in Array	Diameter	Thickness	Cross-Sectional Area	Ambient Temp.	L_2 (test)	Manner of Failure

Mean value of L_1 (test) _____ Mean value of L_2 (test) _____

Standard deviation _____ Standard deviation _____ Satisfactory
(see Appendix A, A-5) _____

f_r (test) (see Appendix A, A-4) _____

Operator's name _____ Clock no. _____

Manufacturer _____

Date _____ By _____

Remarks: