

118942

FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS  
As Required by the Provisions of the ASME Code Rules, Section VIII Division 1

HX-6002

- 1. Manufactured and certified by **SPX Flow Technology - APV Heat Transfer, 1200 W. Ash Street, Goldsboro, NC 27530**  
(Name and address of Manufacturer)
- 2. Manufactured for **Mississippi Power Company, 2992 West Beach Boulevard, Gulfport, Ms. 39501**  
(Name and address of Purchaser)
- 3. Location of Installation **Mississippi Power Company, 5835 Highway 493, Dekalb, Ms. 39328**  
(Name and Address)
- 4. Type: **Vert.** **Heat Exchanger** **G201000817**  
(Horiz. or vert., or sphere) (Tank, separator, jkt. vessel, heat ex., etc.) (Mfg.'s serial No.)  
**N/A** **1000817 REV 01** **13879** **2012**  
(CRN) (Drawing No.) (Nat'l. Bd. No.) (Year built)
- 5. ASME Code, Section VIII, Div.1 **2007/2009** **N/A**  
(Edition and Addenda (date)) (Code Case No.) (Special Service per UG 120(d))

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell for heat exchangers, or chamber of multi-chamber vessels.

- 6. Shell (a) No. of course(s): **no shell** (b) Overall length (ft & in.):

No.	Course(s)		Material Spec./Grade or Type	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
	Diameter, in.	Length (ft & in.)		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time

- 7. Heads: (a) **SA516-70 Head, Fixed** (b) **SA516-70 Head, Moveable**  
(Mat'l Spec. No., Grade or Type) H.T. - Time & Temp. (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp.

	Location (Top Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	END	4.226"	0.0"						57"X148"					
(b)	END	3.97"	0.0"						57"X142"					

If removable, bolts used (describe other fastenings) **Bolts 20 SA 193-B7 M48, Nuts 40 SA 194-2H M48**  
(Mat'l, Spec. No., Grade., size, No.)

- 8. Type of jacket **Jacket closure**  
(Describe as ogee & weld, bar, etc.)  
If bar, give dimensions  If bolted, describe or sketch.
- 9. MAWP **175/175** psi at max. temp. **150** °F Min. design metal temp. **-20** °F at **175/175** psi  
(internal) (external) (internal) (external)
- 10. Impact test **Bolting, Impact exempt per fig. UCS-66(e)** at test temperature of  °F  
(Indicate yes or no and the components(s) impact tested)
- 11. Hydro., pneu., or comb. test press. **263 psi** Proof test

Items 12 and 13 to be completed for tube sections.

- 12. Tubesheet: **Stationary (Mat'l Spec. No.)** **Dia., in. (subject to press.)** **Nom. thk., in.** **Corr. Allow., in.** **Attachment (welded or bolted)**  
**Floating (Mat'l Spec. No.)** **Dia., in.** **Nom. thk., in.** **Corr. Allow., in.** **Attachment**
- 13. Tubes: **Mat'l Spec. No., Grade or Type** **O.D., in.** **Nom. thk., in. or gauge** **Number** **Type (Straight or U)**

Items 14 - 18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

- 14. Shell (a) No. of course(s)  (b) Overall length (ft & in.):

No.	Course(s)		Material Spec./Grade or Type	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
	Diameter, in.	Length (ft & in.)		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time

- 15. Heads: (a)  (b)   
(Mat'l Spec. No., Grade or Type) H.T. - Time & Temp. (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp.

	Location (Top Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)														
(b)														

If removable, bolts used (describe other fastenings)   
(Mat'l Spec. No., Grade, size, No.)

**FORM U-1 (Back)**

16. MAWP \_\_\_\_\_ psi at max. temp. \_\_\_\_\_ °F Min. design metal temp. \_\_\_\_\_ °F at \_\_\_\_\_ psi.  
(internal) (external) (internal) (external)

17. Impact test \_\_\_\_\_ at test temperature of \_\_\_\_\_ °F  
(Indicate yes or no and the component(s) impact tested)

18. Hydro., pneu., or comb. test press. \_\_\_\_\_ Proof test \_\_\_\_\_

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.	Material	Nozzle	Flange	
<b>INLET</b>	<b>2</b>	<b>20"</b>	<b>MACH'D</b>					<b>NONE</b>			<b>HEAD</b>
<b>OUTLET</b>	<b>2</b>	<b>20"</b>	<b>MACH'D</b>					<b>NONE</b>			<b>HEAD</b>

20. Supports: Skirt no Lugs 0 Legs 0 Others \_\_\_\_\_ Feet \_\_\_\_\_ Attached \_\_\_\_\_ Head, Bolted \_\_\_\_\_  
(yes or no) (No.) (No.) (Describe) (Where and how)

21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:  
 (List the name of part, item number, mfg's. name and identifying number)

22. Remarks: **Heads, Impact exempt per UCS 66 (3)(a), Fixed Head to Movable head distance 107-7/8"**  
**Heat transfer plates, Mat'l SB265 Gr1, .024" thick, qty 609, Impact exempt per UNF 65**

**PRESSURE RELIEF DEVICES SUPPLIED BY OTHERS PER UG-125 ( A )**

**CERTIFICATE OF SHOP COMPLIANCE**

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

U Certificate Authorization No. 27,869 Expires July 15, 2015.  
 Date 10/16/12 Name SPX Flow Technology - APV Heat Transfer Signed \_\_\_\_\_  
(Manufacturer) (Representative)

**CERTIFICATE OF SHOP INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by HSB CT. of Hartford Connecticut have inspected the pressure vessel described in this Manufacturer's Data Report on 10/16/12 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 10/16/12 Signed \_\_\_\_\_ Commissions 12512602A NC1503  
(Authorized Inspector) (Nat'l Board, incl. endorsement, State, Province and No.)

**CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE**

We certify that the statements on this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME Code, Section VIII, Division 1.

U Certificate Authorization No. \_\_\_\_\_ Expires \_\_\_\_\_  
 Date \_\_\_\_/\_\_\_\_/\_\_\_\_ Name \_\_\_\_\_ Signed \_\_\_\_\_  
(Assembler) (Representative)

**CERTIFICATE OF FIELD ASSEMBLY INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_ have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel was inspected and subjected to a hydrostatic test of \_\_\_\_\_ psi. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date \_\_\_\_/\_\_\_\_/\_\_\_\_ Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
(Authorized Inspector) (Nat'l Board, incl. endorsements) State, Prov. and No.