

**FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS**

(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by **PHPK Technologies, 2111 Builders Place, Columbus, Ohio, 43204, USA**  
 (Name and address of manufacturer)

2. Manufactured for **Fermi National Accelerator Laboratory, P.O. box 500, Batavia, Illinois, 60510, USA**  
 (Name and address of purchaser)

3. Location of Installation **NOT KNOWN**  
 (Name and address)

4. Type **VERTICAL** **5819** **N/A** **07-1963-6501** **19** **2007**  
 (Horiz. or Vert. tank) (Mfr's serial No.) (CRN) (Drawing No.) (Nat'l. Bd. No.) (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 **2004** to **2006**  
 Code Case Nos. **N/A** Special Service per UG-120(d) **N/A** (year) Addenda (Date)

6. Shell: **SA312 TYPE 304/304L WELDED** **.250** **0** **1' 6" (OD)** **6' 6"**  
 Mat'l. (Spec. No., Grade) Nom. Thk. Corr. Allow. Diam. I.D. Length (overall)

7. Seams: **MILL WELDED PIPE** **NONE** **85** **N/A** **N/A** **TYPE 2** **NONE** **85** **1**  
 Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp Time (hr) Girth. (Welded, Dbl., Sngl., Lap, Butt) R.T (Spot or Full) Eff (%) No. of Courses

8. Heads: (a) Mat'l: **SA403, TYPE 304/304L** (Spec. No., Grade) (b) Mat'l: \_\_\_\_\_ (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	<b>BOTTOM</b>	<b>.1325</b>	<b>0</b>	<b>N/A</b>	<b>N/A</b>	<b>2:1</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>CONCAVE</b>

If removable, bolts used (describe other fastenings) \_\_\_\_\_  
 (Mat'l., Spec. No., Gr., Size, No.)

9. MAWP **150 psi** **-14.7 psi** at max. temp. **120 °F** **120 °F**  
 (internal) (external) (internal) (external)

Min. design metal temp. **-320 °F** at **150 psi** Hydro, pneu., or comb. test pressure **PNEUMATIC at 182 psi**

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l.	Nom. Thk.	Reinforcement Mat'l.	How Attached	Location

11. Supports: Skirt **N/A** Lugs **N/A** Legs **4** Other **N/A** Attached **WELDED TO SHELL**  
 (Yes or no) (No.) (No.) (Describe) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors, have been furnished for the following items of the report:  
**N/A**  
 (Name of part, item number, Mfgr's name and identifying stamp)

**78" SHELL SECTION WITH SA403 LOWER HEAD AND SA182 SO FLANGE WITHOUT COVER.**  
Safety valve provided in system.  
Impact exempt per UHA 51(g).  
Designed for Noncorrosive service.

**CERTIFICATE OF SHOP/FIELD 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 of Authorization No. **35253** expires **08/17/2008**

Date **10/01/2007** Co. name **PHPK Technologies** Signed \_\_\_\_\_  
 (Manufacturer) (Representative)

**CERTIFICATE OF SHOP/FIELD INSPECTION**

Vessel constructed by **PHPK Technologies** at **2111 Builders Place, Columbus, Ohio, 43204, USA**, I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province **OH** and employed by **HSB CT of Hartford, CT** have inspected the component described in this Manufacturer's Data Report on **September 13, 2007** 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 **10/19/2007** Signed \_\_\_\_\_ Commissions \_\_\_\_\_  
 (Authorized Inspector) (Nat'l Board (incl. endorsements), State, Prov. and No.)