

FORM U-1A MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS (Alternate Form for Single Chamber, Completely Shop-Fabricated Vessels Only) As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured by HAPPY DIVISION, THERMA TECHNOLOGY / TULSA, OKLAHOMA
2. Manufactured for PHILADELPHIA GAS WORKS/PHILADELPHIA, PA
3. Location of Installation PHILADELPHIA GAS WORKS/PHILADELPHIA, PA
4. Type HORIZONTAL 3416-7-2B --- C-17840 963 (Year Built) 1977
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 1974 and Addenda to 12-31-77 and Code Case Nos. ---
Special Service per UG-120(d) ---
Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: ---

6. Shell: Mat. No Shell Nom. --- Corr. --- in. Allow. --- in. Diam. --- in. Lgth. --- ft --- in.
7. Seams: Long. Welded R.T. No Efficiency --- % H.T. Temp. 1100 F Time 1 hr
8. Heads: (a) Material SA-515-70 (b) Material SA-515-70

Table with columns: Location (Top, Bottom, Ends), Min. Thk., Corr. Allow., Flat Diam., Side to Pressure (Convex or Concave). Rows for T & P Sht and Wrapper Sht.

9. Constructed for max. allowable working pressure 475 psi at max. temp. 650 F. Min. temp. (when less than -20 F) --- F. Hydrostatic test pressure 715 psi.
10. Safety Valve Outlets: Number --- Size --- Location ---
11. Nozzles and Inspection Openings:

Table with columns: Purpose (Inlet, Outlet, Drain), No., Diam. or Size, Type, Mat., Nom. Thk., Reinforcement Mat., How Attached, Location. Rows for Inlet, Outlet, Vent, Drain, Inlet, Outlet.

12. Supports: Skirt --- Lugs 4 Legs --- Other --- Attached Welded to Tube Sht
13. Remarks: Box Header at Tube Ends 4 Row, 3 Pass, Tubes; Mat'1 SA-214
Qty 186 O.D. 1" X .085 MW X32'0" Long.

Unit Service: CARBONATE SOLUTION COOLER

CERTIFICATE OF 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
Date DEC 8 7 87 Signed Happy Div. Therma-Tech. by [Signature]
'U' Certificate of Authorization No. 10,491 expires May 11, 1980

CERTIFICATE OF SHOP INSPECTION
Vessel made by Happy Div. Therma-Technology at Tulsa, Oklahoma
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 Arkansas and employed by Coml. Union Ins. Co have inspected the pressure vessel described in this Manufacturers' Data Report on 12-27-77 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 the Manufacturers' 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.
Signed [Signature] Date 12-27-77 Commissions NB 7935

PHILADELPHIA GAS WORKS
R. B. BLINGSKY
DIRECTOR