#108178

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

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

R001248 1/2

1. Manufactured and certified by PFAUDLER, INC., 1000 WEST AVENUE, ROCHESTER, NEW YORK 14611
(Name and address of Manufacturer)

2. Manufactured for Occidental Chemical Corporation, P O Box 27702, Houston, TX 77227-7702
(Name and address of Purchaser)

3. Location of Installation Occidental Chemical Corporation, Buffalo Avenue & 53rd Street, Niagara Falls, NY 14302
(Name and address)

4. Type: Vertical (Horiz., vert., or sphere) | Jacketed Vessel, RS60-1300 (Tank separator, jkt. vessel, heat exh., etc.) | J016966 (Mfg's serial No.) | NA (CRN) | R971323Sht.1 Rev.D (Drawing No.) | 49078 (Nat'l. Bd. No.) | 1997 (Year built)

5. ASME Code, Section VIII, Div. 1 | Edition 1995, Addenda 1996 (Edition and Addenda (date)) | 2043-2 (Code Case No.) | NA (Special Service per UG-120(d))

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

6. Shell (a) No. of course(s): 1 (b) Overall length (ft & in.): 8' 2-1/4"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No	Diameter, in.	Length (ft & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	66" OD	8' 2-1/4"	SA-516 Gr 70	3/8"	1/16"	1	None	70%	1, 2	None	65%	NA	NA

7. Heads: (a) NA (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp (b) SA-516 Gr 70 NA (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp

	Location (Top, Bottom, Ends)	Thickness Min.	Thickness Corr.	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure Convex	Side to Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff.
(a)	NA													
(b)	Bottom	.437"	1/16"	66"	4"	NA	NA	NA	NA	No	Yes	S	None	85%

If removable, bolts used (describe other fastening) NA (Mat'l Spec. No., Grade, Size, No.)

8. Type of jacket FIG 9-2, Type 5 Jacket closure FIG 9-5, (b-2) (Describe as ogee & weld, bar, etc.)

If bar, give dimensions NA If bolted, describe or sketch.

9. MAWP 95/95w/FV (internal) NA (external) psi at max. temp. 450 (internal) NA (external) °F Min. design metal temp. -20 °F at 95 psi.

10. Impact test No, exempt from impact testing per UG-20(f). (indicate yes or no and the component(s) impact tested)

11. Hydro., [redacted], or [redacted] test press 143 psi Proof test NA

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: Items 12-13 NA

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): 2 (b) Overall length (ft & in.): 7' 8"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B & C)			Heat Treatment	
No	Diameter, in	Length (ft & in)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	60" ID	5' 8"	SA-516 Gr 65	5/8"	1/16"	1	None	70%	1	None	70%	27-6	27-6
2	60" ID	2' 0"	SA-516 Gr 65	5/8"	1/16"	1	None	70%	1	None	70%	27-6	27-6

15. Heads: (a) SA-516 Gr 65 Per Appendix 27-6 (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp. (b) SA-516 Gr 65 Per Appendix 27-6 (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp.

	Location (Top, Bottom, Ends)	Thickness Min	Thickness Corr	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure Convex	Side to Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff.
(a)	Top	.625"	0"	NA	NA	2:1	NA	NA	NA	Yes	Yes	S	None	85%
(b)	Bottom	.625"	1/16"	NA	NA	2:1	NA	NA	NA	Yes	Yes	S	None	85%

If removable, bolts used (describe other fastening) NA (Mat'l Spec. No., Grade, Size, No.)

16. MAWP 100/FV (internal) 110 (external) psi at max. temp. 450 (internal) 450 (external) ° F Min. design metal temp. -20 ° F at 100 psi.

17. Impact test No, exempt from impact testing per UG-20(f).
(Indicate yes or no and the component(s) impact tested)

18. Hydro., [illegible]., or comb. test pressure 100 psi Proof test NA

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc)	No.	Diameter or Size	Flange Type	Material: Nozzle	Material: Flange	Nozzle Thickness: Nom.	Nozzle Thickness: Corr.	Reinforcement Material	How Attached: Nozzle	How Attached: Flange	Location (Insp. Open.)
Manway/Cvr	1	24"	CLAMP	SA-836	SA-836	9/16"	0"	NA	Note 1	Integral	NA
Inlet	1	8"	LAPJT	SA-836	SA-181 Cl 60	7/16"	0"	NA	Note 1	Loose	NA
Inlet	1	6"	LAPJT	SA-836	SA-181 Cl 60	29/64"	0"	NA	Note 1	Loose	NA
Inlet/Outlet	7	4"	LAPJT	SA-836	SA-181 Cl 60	3/8"	0"	NA	Note 1	Loose	NA
Inlet	1	3"	LAPJT	SA-836	SA-181 Cl 60	11/32"	0"	NA	Note 1	Loose	NA
Jkt Conn	2	3"	LAPJT	SA-216 Gr WCA	SA-105	CL 150	0"	NA	UW-16.1c	Loose	NA
Jkt Conn	4	2"	LAPJT	SA-216 Gr WCA	SA-105	CL 150	0"	NA	UW-16.1c	Loose	NA

20. Supports: Skirt No (Yes or No.) Lugs 4 (No.) Legs 0 (No.) Others NA (Describe) Attached Welded to jacket shell (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)
NA

22. Remarks: Constructed in Conformance With Appendix 27, Alternative Requirements For Glass-Lined Vessels. Note 1: Category B weld to swaged opening, E = 70%. Inner vessel hydrotested in the vertical position. Pressure relief per UG-125 provided and installed by customer. Inspection openings provided per UG-46. See Form U-4. Customer Order #:58-P044-00-P13-0025. Customer Tag #:R704X. Pfaudler Serial #:J016966.

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 of Authorization No. 408 Expires December 31, 2000

Date 11/21/97 Name PFAUDLER, INC. (Manufacturer) Signed [signature] (Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the State or Province of NY and employed by Hartford Steam Boiler Inspection and Insurance Company of Hartford, Connecticut have inspected the pressure vessel described in this Manufacturer's Data Report on 11/21 97, 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 11/21/97 Signed [signature] (Authorized Inspector) Commissions N.B.# 10496 A (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 of Authorization No. Expires

Date Name (Assembler) Signed (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 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 (Authorized Inspector) Commissions (Nat'l Board incl. endorsement, State, Province and No.)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

R001248

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(Name and address of Manufacturer)

2. Manufactured for Occidental Chemical Corporation, P O Box 27702, Houston, TX 77227-7702
(Name and address of Purchaser)

3. Location of Installation Occidental Chemical Corporation, Buffalo Avenue & 53rd Street, Niagara Falls, NY 14302
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4. Type: Vertical (Horiz., vert., or sphere) | Jacketed Vessel, RS60-1300 (Tank separator, heat exh., etc) | J016966 (Mfg's serial No.)

NA (CRN) | R971323 Sht.1 Rev.D (Drawing No.) | 49078 (Nat'l. Bd. No.) | 1997 (Year built)

Data Report Item Number | Remarks

Item 19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material: Nozzle	Material: Flange
Jkt Conn	2	2"	NPT	SA-216 Gr WCA	NA
Jkt Conn	2	1/2"	NPT	SA-105	NA

Nozzle Thickness: Nom.	Nozzle Thickness: Corr.	Reinforcement Material	How Attached: Nozzle	How Attached: Flange	Location (Insp. Open.)
3000#	0"	NA	UW-16.1c	NA	Jacket Shell/Head
3000#	0"	NA	UW-16.1c	NA	NA

Certificate of Authorization: Type U No. 408 Expires December 31, 2000

Date 11/21/97 Name PFAUDLER, INC. (Manufacturer) Signed Thomas B. Maier (Representative)

Date 11/21/97 Name Bruce Stempfer (Authorized Inspector) Commission N.B.# 10976 A (Nat'l Board (incl. endorsements) State, Province and No.)