

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 Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by Mueller Environmental Designs, Inc., 31150 FM 529, Brookshire, Texas, 77423, USA

(Name and address of Manufacturer)

2. Manufactured for ENERGY TRANSFER, CANTON, Pennsylvania, USA

(Name and address of Purchaser)

3. Location of Installation UNKNOWN

(Name and address)

4. Type VERTICAL

(Horizontal or vertical, tank)

3999

(Manufacturer's serial number)

N/A

(CRN)

21-217560-01

(Drawing number)

361

(National Board number)

2017

(Year built)

5. ASME Code, Section VIII, Division 1

2015/ NO ADDENDA

[Edition and Addenda, if applicable (date)]

N/A

(Code Case numbers)

N/A

(Special service per UG-120(d))

6. Shell: SA-516-70N

(Material spec. number, grade)

1.5"

(Nominal thickness)

.125"

(Corr. allow.)

36" (ID)

(Inner diameter)

120"

[Length (overall)]

Body Flanges on Shells

No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

7. Seams: WELDED TYPE 1

[Long. (welded, dbl., sngl., lap, butt)]

FULL

[R.T. (spot or full)]

1.0

(Eff. %)

1150 °F

(H.T. temp)

1.5

(Time, hr)

WELDED TYPE 1

[Girth. (welded, dbl., sngl., lap, butt)]

FULL

[R.T. (spot or full)]

1.0

(Eff. %)

1

(No. of courses)

8. Heads: (a) Material

SA-516-70N

(Spec. no., grade)

(b) Material

SA-516-70N

(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)	TOP	1.44"	.125"	N/A	N/A	2:1	N/A	N/A	N/A	CONCAVE
(b)	BOTTOM	1.44"	.125"	N/A	N/A	2:1	N/A	N/A	N/A	CONCAVE

Body Flanges on Heads

No.	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A

9. MAWP 1440 psi

(Internal)

N/A

(External)

at max. temp.

120 °F

(Internal)

N/A

(External)

Min. design metal temp. -20 °F

at

1440 psi

Hydro, pneu., or comb. test pressure

HYDRO at 2160 psi

Proof test

N/A

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
INLET N1	1	16"	600 HB		SA-105	2.69"	.125"		UW16.1(c)		SHELL
GAS OUT N2	1	16"	600 HB		SA-105	2.69"	.125"		UW16.1(c)		SHELL
DUMP MAN CLN	1	1"	6000 TOL	SA-105			.125"		UW16.1(a)		SHELL
TSV/MAN VENT	1	2"	600 LWN		SA-105	.655"	.125"		UW16.1(c)		HEAD
BRIDLE SLUG HI	1	2"	600 LWN		SA-105	.655"	.125"		UW16.1(c)		SHELL

Additional Nozzles - See Attached U-4...

11. Supports: Skirt YES

(Yes or no)

Lugs N/A

(Number)

Legs N/A

(Number)

Other N/A

(Describe)

Attached WELDED TO BOTTOM HEAD

(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:

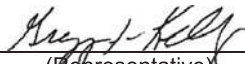
N/A

(Name of part, item number, Manufacturer's name and identifying stamp)

IMPACT TEST PER UG-84 to -20F HEAD/SHELL, N1,N2,N8,N10,N18,N19,N20A/B, ALL OTHER EXEMPT PER UCS-66(b) (3)(1) 2"-600# RFBLD w/(8) 5/8" X 4 1/4" SA-193-B7 STUDS and SA-194-2H NUTS-(2) 6"-600# RFBLD w/(12) 1" X 6 3/4" SA-193-B7 STUDS and SA-194-2H NUTS

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 BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization Number 41203 expires April 17, 2020.

Date 09/05/2017 Co. name Mueller Environmental Designs, Inc. Signed 
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Mueller Environmental Designs, Inc. at 31150 FM 529, Brookshire, Texas, 77423, USA
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and employed by TUV Rheinland AIA Services, LLC, of Houston, TX

have inspected the component described in this Manufacturer's Data Report on September 5, 2017,
and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her 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 09/06/2017 Signed  Commissions 13625
(Authorized Inspector) [National Board (incl. endorsements)]

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

1. Manufactured and certified by Mueller Environmental Designs, Inc., 31150 FM 529, Brookshire, Texas, 77423, USA
(Name and address of Manufacturer)

2. Manufactured for ENERGY TRANSFER, CANTON, Pennsylvania, USA
(Name and address of Purchaser)

3. Location of installation UNKNOWN
(Name and address)

4. Type VERTICAL N/A 3999
(Horizontal, vertical, or sphere) (Tank, separator, heat exch., etc.) (Manufacturer's serial number)

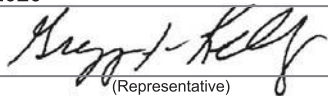
N/A 21-217560-01 361 2017
(CRN) (Drawing number) (National Board number) (Year built)

Data Report
Item Number Remarks

Additional nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
BRIDLE SLUG L N8	1	4"	FORG	SA-105		1.811"	.125"		UW16.1(c)	TYPE 1	HEAD
SPARE	1	2"	600 LWN		SA-105	.655"	.125"		UW16.1(c)		SHELL
DOWNCOMER HI N10	1	4"	600 HB		SA-105	1.615"	.125"		UW16.1(c)		SHELL
INJECTION	1	1"	6000 TOL	SA-105			.125"		UW16.1(a)		NOZZLE
DP INLET	1	3/4"	6000 TOL	SA-105			.125"		UW16.1(a)		NOZZLE
SPARE	1	3/4"	6000 TOL	SA-105			.125"		UW16.1(a)		NOZZLE
PI CLEAN	1	3/4"	6000 TOL	SA-105			.125"		UW16.1(a)		NOZZLE
DP CLEAN	1	3/4"	6000 TOL	SA-105			.125"		UW16.1(a)		NOZZLE
TI CLEAN	1	3/4"	6000 TOL	SA-105			.125"		UW16.1(a)		NOZZLE
INSP HEL DECK N18	1	6"	600 HB		SA-105	2.06"	.125"		UW16.1(c)		SHELL
INSP HEL SUMP N19	1	6"	600 HB		SA-105	2.06"	.125"		UW16.1(c)		SHELL
INSP SLUG N20 A/B	2	6"	600 HB		SA-105	2.06"	.125"		UW16.1(c)		SHELL
DOWNCOMING LO	1	2"	600 LWN		SA-105	.655"	.125"		UW16.1(c)		SHELL

Certificate of Authorization: Type "U" No. 41203 Expires April 17, 2020

Date 09/05/2017 Name Mueller Environmental Designs, Inc. Signed 
(Manufacturer) (Representative)

Date 09/06/2017 Signed  Commissions 13625
(Authorized Inspector) (National Board Authorized Inspector Commission number)