

EXHIBIT II
MANUFACTURE'S DATA REPORT AND
VESSEL CERTIFICATION

EXHIBIT II - MANUFACTURERS' DATA REPORT AND VESSEL CERTIFICATION

The power rerate design requirements are unchanged from the original design requirements (i.e., design pressure of 1250 psig at bottom of the reactor vessel, design temperature of 575°F).

The power rerate normal operating pressure is increased from 1005 psig to 1035 psig at top of reactor vessel. The normal operating temperature is increased from 547°F to 551°F.

The Unit 2 and 3 TPO power rerate did not change the normal operating pressure or temperature for the reactor vessel.

The extended power uprate (EPU) design requirements for the reactor vessel are unchanged from the original design requirements. The EPU did not change the normal operating pressure or temperature for the RPV.

FORM N-1A MANUFACTURERS' DATA REPORT FOR NUCLEAR VESSELS
 Alternate Form for Single Chamber Completely Shop-Fabricated Vessels Only
 As required by the Provisions of the ASME Code Rules CB&I Cont. 69-4962

GENERAL ELECTRIC CO. INFORMATION
 APED - SAN JOSE
 2754-108-4

ONLY

1. Manufactured by Chicago Bridge & Iron Company, Memphis, Tennessee
 (Name and address of Manufacturer)

2. Manufactured for General Electric Co. for Philadelphia Electric Co. Peach Bottom, Pennsylvania
 (Name and address of Purchaser)

3. Type Vert. Vessel No. (T-23) () Nat. Bd. No. 3903 Year Built 1970
 (Ident. or Vert.) (Intro. Serial) (State & Date No.)

4. Shell: Material Mn. Mo. Ni. Ts80,000 Th. In. Allow In. Diam. 20 Ft. 11 In. Length 72 Ft. 11 In.
 (Kind & Spec. No.) (Min. of range specified) See remarks Mn. Mo. Ni. Steel
Electroslag

5. Seams: Long Dbl Butt Wld. H.T. Yes X.R. Complete Efficiency % SA 302 Gr B to CC1339
 (Class B)

6. Heads: (a) Material Mn. Mo. Ni. Ts80,000 (b) Material Mn. Mo. Ni. Ts80,000
 Location: (Top, bottom, ends) Thickness In. Crown Ribs Elliptical Conical Hemispherical TMR Side to Pressure
 (Top, bottom, ends) Thickness In. Crown Ribs Elliptical Conical Hemispherical TMR (Concave or Convex)

(a) Bottom 6.125 8.000 min. 125 11/16 Concave
 (b) Top 4.000 min. 125 11/16 Concave

If removable, bolts used 145,000 6" 92 Other fastenings See Dwg N-1 attached for
 material specification (Describe or Attach Sketch)

7. Constructed for (at top) Charpy Impact 30 ft-lb Hydrostatic Ga. at Bottom Vessel
 operating press 1005 psi at max. temp. 547 °F. at temp. of 106+40 °F. Test Press 1563 psi.
 Safety or Relief Valve Outlets: Number Size Location Unknown

8. Charpy of closure flgs. & adjacent shell & hd. plates only at +10 °F.

9. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reference Material	How Attached
<u>See Dwg N1</u>	<u>38</u>	<u>1" to 36"</u>	<u> </u>	<u> </u>	<u>0.401/13</u>	<u>55 Integral</u>	<u>Welded</u>

10. Inspection Manholes, No. Size Location
 Openings: Manholes, No. Size Location
 Threaded, No. Size Location

11. Supports: Skirt Yes Legs (Number) (Number) Other Attached Welded to Bottom Head
 (Yes or No) (Describe) (Where & How)

12. Remarks: Shell and Bottom Head thickness given above are for base metal
and do not include 1/8" min. overlay cladding. Top head thickness includes
1/8" total corrosion allowance and no cladding.
See Drawing N1 for nozzle information and Serial Nos. of parts
See Attachment #1 for fabrication information including post-hydro repair.
See Attachment #2 for Applicable Addenda to Code & Code Cases.
 (Brief description of purpose of the vessel—State Contents.)

¹ If Postweld Heat-Treated.
² List other internal or external pressure with coincident temperature when applicable.

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

Date 12-2 1970 Signed Chicago Bridge & Iron Co. By
 (Manufacturer)

Certificate of Authorization Expires October 27, 1972

CERTIFICATION OF DESIGN

Design information on file at Chicago Bridge & Iron Co., Memphis, Tenn.
 Stress analysis report on file at Chicago Bridge & Iron Co., Memphis, Tenn.
 Design specifications certified by R.L. Call (G.E. Co.) Prof. Eng. Mech. State Calif Reg. No. 13540
 Stress analysis report certified by J.P. Butti (Babcock & Wilcox Co.) Prof. Eng. Mech. State Ohio Reg. No. 29810

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Chicago Bridge & Iron Co. Memphis, Tenn.
 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 Hartford Steam Boiler & Iron Works, Hartford, Conn.
 have inspected the pressure vessel described in this manufacturer's data report on 12-2 19 70, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the ASME Code for Nuclear Vessels.
 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 12-2 19 70
 Commissioner 118 6475
 National Board of State and No.

PBAPS

Nat'l Bd.#3903

Revision 1
August 26, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT
A Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer
610-0139-1 As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Mt. Vernon, Indiana
(Name and address of Manufacturer of part)
(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)
2. Identification-Manufacturer's Serial No. of Part A48-139-1
(a) Constructed According to Drawing No. 129378E Drawing Prepared by The Babcock & Wilcox Co.
(b) Description of Part Inspected Shell Course, MK. 60 welded to Flange MK. 48
3. Remarks: This Shell Course is comprised of segments as follows:

	SERIAL NUMBER	HEAT NUMBER
MK. 48	48-139-1	124-V-201 ASB-87
	6-139-4	C2796-2
MK. 60	6-139-5	C2863-2
	6-139-6	C2773-1

Shell Course for Class A Reactor Vessel

Certification of Design shall be furnished by others
(Brief description of service for which vessel part was designed)

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

Date September 16 19 69 Signed The Babcock & Wilcox Co.
(Manufacturer)

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XX

Stress analysis report on file at XX

Design specifications certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XX Reg. No. XXXXXX

Stress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XX Reg. No. XXXXXX

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 XXXXXX of Hartford and employed by Hartford SBI & I Company of Hartford, Conn. have inspected the part of a pressure vessel described in this manufacturer's partial data report on September 16 19 69, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 September 16 19 69

R. L. Mason
Inspector's Signature

Commission NB-3864
National Board or State and No.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers. Clad with 1/8" Min. thickness stn. steel

Code Case 1339

4. Shell: Material SA-302B T.S. 80,000 Min. 6 1/8" Corrosion 1/16 in. Allowance 20.11 in. Diam. 14 ft. 37/8" in. (Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long Butt Weld R.T. Yes Efficiency ----- % (U Class B)

6. Heads: (a) Material Butt Weld R.T. Yes No. of Courses One

(b) Material ----- T.S. -----

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Conv. or Conc.)
(a)								
(b)								

If removable, bolts used ----- (Material, Spec. No., T.S., Size, Number) Other fastening ----- (Describe or attach sketch)

Flange 251 3/8" I.D. X 279 1/2" O.D., A508, CL. 2, Code Case 1332-2, Clad with 1/8" Min. thickness stainless steel

7. Jacket Closure: Mating surface clad with 1/4" Inconel Charpy Impact ----- ft-lb

8. Constructed for specified operating pressure¹ ----- psi at max. temp. ----- °F at temp. of ----- °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material ----- Diam. ----- Thickness ----- in. Attachment ----- (Welded, Bolted)

10. Tubes: Material ----- O.D. ----- in. Thickness ----- in. Attachment ----- (Str. or U)

Items 11-14 Incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material ----- T.S. ----- Nominal ----- Corrosion ----- in. Allowance ----- in. Diam. ----- ft. ----- in. Length ----- ft. ----- in. (Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long ----- H.T.¹ ----- X.R. ----- Efficiency ----- % (U Class B)

6. Heads: (a) Material ----- T.S. ----- (b) Material ----- T.S. -----

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) Top, bottom, ends								
(b) Channel								

If removable, bolts used (a) ----- (b) ----- (c) ----- Other fastening ----- (Describe or attach sketch)

14. Constructed for specified operating pressure¹ ----- psi at max. temp. ----- °F at temp. of ----- °F Charpy Impact ----- ft-lb

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number ----- Size ----- Location -----

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Openings: Manholes, No. ----- Size ----- Location -----
Handholes, No. ----- Size ----- Location -----
Threaded, No. ----- Size ----- Location -----

18. Supports: Skirt ----- Lugs ----- (Number) ----- Legs ----- (Number) ----- Other ----- (Describe) Attached ----- (Where & How)

¹ If Postweld Heat-Treated.

² List other internal or external pressure with coincident temperature when applicable.

NDT on O.D. Build-up on Flange has not been performed since build-up has not been machined by final configuration.

Nat'l Bd. #3903

Revision 1
August 26, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT
A' Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer
610-0139 As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Barberton, Ohio
(Name and address of Manufacturer of part)

(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)

2. Identification-Manufacturer's Serial No. of Part See Remarks

(a) Constructed According to Drawing No. 129384E Drawing Prepared by The Babcock & Wilcox Co

(b) Description of Part Inspected 2" Instrumentation Nozzle (MK. A-12)

3. Remarks: NOZZLE SER. NO. HEAT NO. SAFE END SER. NO. HEAT NO.

<u>A12-139-9</u>	<u>8601</u>	<u>9-139-1</u>	<u>26083</u>
<u>A12-139-10</u>	<u>8601</u>	<u>9-139-2</u>	<u>26083</u>

2" Inst. Nozzle for Class A Reactor Vessel

Certification of Design shall be furnished by others

(Brief description of service for which vessel part was designed)

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

Date January 26 19 70 Signed The Babcock & Wilcox Co *RE L...*
(Manufacturer)

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XX

Stress analysis report on file at XX

Design specifications certified by XXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XX Reg. No. XXXXXX

Stress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXXX State XX Reg. No. XXXXXX

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 of Hartford and employed by Hartford SBI & I Company of Hartford, Conn. have inspected the part of a pressure vessel described in this manufacturer's partial data report on January 27 19 70, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 January 27 19 70

H. M. Lenz
 Inspector's Signature

Commission

Ohio 1143

National Board or State and No.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
(If Class B)

Orth _____ H.T.¹ _____ R.T. _____ No. of Courses _____

6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) _____

(b) _____

If removable, bolts used (Material, Spec. No., T.S., Size, Number) Other fastening (Describe or attach sketch)

7. Jacket Closure: _____ (Describe as edges and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).

8. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Diam. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Flanging. Material _____ Diam. _____ Thickness _____ in. Attachment _____
inches or gage.

10. Tubes: Material _____ O.D. _____ in. Thickness _____ in. Attachment _____
Type (Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T.¹ _____ X.R. _____ Efficiency _____ %
(If Class B)

Orth _____ H.T.¹ _____ X.R. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure
(Convex or Concave)

(a) Top, bottom, ends _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening (Describe or attach sketch)

14. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Inst. MK. 12	2	2"	Bar	CC1336-1	.401"	Integral	
Safe End MK. 9	2	2"	Pipe	SA336	.401"	Integral	Welded
				CL-F8 Type 304			

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)

¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable

PBAPS

Nat'l Bd. #3903

Revision 1
August 26, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT

A Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer
610-0139-1 As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Mt. Vernon, Indiana
(Name and address of Manufacturer of part)

(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)

2. Identification-Manufacturer's Serial No. of Part See Remarks

(a) Constructed According to Drawing No. 129381E Drawing Prepared by The Babcock & Wilcox Co.

(b) Description of Part Inspected Four 26" Steam Outlet Nozzles

NOZZLE SER. NO.	HEAT NO.	SAFE END SER. NO.	HEAT NO.
A14-139-1	AV1670-7J-6163	32-139-1	214795
A14-139-2	AV1684-7K-6270	32-139-2	214795
A14-139-3	AV1844-7K-6012	32-139-6	214795
A14-139-4	AV1671-7J-6164	32-139-5	214795

Four (4) Steam Outlet Nozzles with Safe End for Class A Reactor Vessel

Certification of Design shall be furnished by others

(Brief description of service for which vessel part was designed)

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

Date September 4 19 69 signed The Babcock & Wilcox Co.
(Manufacturer)

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XX

Stress analysis report on file at XX

Design specifications certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXXXX

Stress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXXXX State XXX Reg. No. XXXXXXXX

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 of Hartford and employed by Hartford SBI & I Company of Hartford, Conn have inspected the part of a pressure vessel described in this manufacturer's partial data report on September 2 19 69, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 September 4 19 69

R. J. Mason
Inspector's Signature

Commission NB-3864
National Board or State and No.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
(If Class B)Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)
(a) _____
(b) _____
If removable, bolts used (Material, Spec. No., T.S., Size, Number) Other fastening (Describe or attach sketch)7. Jacket Closure: _____
(Describe as gage and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).8. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Diam. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Diam. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ in. Attachment _____
Inches or gage. Number _____ Type _____ (Str. or U)

Items 11-14 Incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length² _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range specified)12. Seams: Long _____ H.T.¹ _____ X.R. _____ Efficiency _____ %
(If Class B)Girth _____ H.T.¹ _____ X.R. _____ No. of Courses _____13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure (Convex or Concave)
(a) Top, bottom, ends _____
(b) Channel _____
If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening (Describe or attach sketch)14. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles: Nozzles clad internally with 1/8" min. thickness stainless steel

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Reinforcement Material	How Attached
Steam Outlet	4	26"	Forg. CC1332-1&2	9.437" Integral	
Safe End	4	26"	Pipe SA105 Gr. II	1.312" Integral	Welded
			CC1332-1		

17. Inspection Manholes, No. _____ Size _____ Location _____
Openings: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material CC1339 SA-302B T.S. 80,000 Nominal Thickness 6 3/8" Corrosion Allowance 1/16 in. Diam. 21 ft. 0 in. Length 18 ft. 11 5/8" in.

5. Seams: Long Butt Weld H.T.¹ Yes R.T. Yes Efficiency ----- %
(If Class B)

See Note 1 Girth Butt Weld H.T.¹ Yes R.T. Yes No. of Courses (2) Two

6. Heads: (a) Material ----- T.S. ----- (b) Material ----- T.S. -----

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Conv. or Conc.)
(a)								
(b)								

If removable, bolts used ----- (Material, Spec. No., T.S., Size, Number) Other fastening ----- (Describe or attach sketch)

7. Jacket Closure: ----- (Describe as ogee and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).
Shell Sub-Assy. clad on I.D. with 1/8" min. thickness stainless steel

8. Constructed for specified operating pressure² ----- psi at max. temp. ----- °F at temp. of ----- °F
Charpy Impact ----- ft-lb

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material ----- Diam. ----- Thickness ----- in. Attachment ----- (Welded, Bolted)

Floating. Material ----- Diam. ----- Thickness ----- in. Attachment -----

10. Tubes: Material ----- O.D. ----- in. Thickness ----- inches or gage. Number ----- Type ----- (Str. or U)

Items 11-14 Incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material ----- T.S. ----- Nominal Thickness ----- in. Corrosion Allowance ----- in. Diam. ----- ft. ----- in. Length ----- ft. ----- in.

12. Seams: Long ----- H.T.¹ ----- X.R. ----- Efficiency ----- %
(If Class B)

Girth ----- H.T.¹ ----- X.R. ----- No. of Courses -----

13. Heads: (a) Material ----- T.S. ----- (b) Material ----- T.S. -----

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) Top, bottom, ends								
(b) Channel								

If removable, bolts used (a) ----- (b) ----- (c) ----- Other fastening ----- (Describe or attach sketch)

14. Constructed for specified operating pressure² ----- psi at max. temp. ----- °F at temp. of ----- °F
Charpy Impact ----- ft-lb

Items below to be completed for all vessels where applicable.

MK. 10 Safety Valve: Number ----- Size ----- Location -----
16. Nozzles clad internally with 1/8" min. thickness stainless steel
See Note #1

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Thickness	Reinforcement Material	Safe Ends How Attached
MK. 10 Feedwater	6	12"	Forg. cc1332-2	7.150"	Integral	SA105 II, CC1332-1
MK. 11 Core Spray	2	10"	" cc1332-2	5.920"	Integral	Stn.Stl. SA376 T3
MK. 13 C.R.D.	1	4"	Forg. CL2-A508	3.625"	Integral	Stn.Stl. SA336 CL
MK. 12 Instr.	2	2"	Bar. SA106	.401"	Integral	Stn.Stl. SA336 CL

Openings: Handhole, No. ----- Size ----- CC1336
Threaded, No. ----- Size ----- Location -----

18. Supports: Skirt ----- Lugs ----- Legs ----- Other ----- Attached ----- (Where & How)

¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.

Nat'l Bd. #3903

Revision 2
October 7, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT
A Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer
As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Mt. Vernon, Indiana
(Name and address of Manufacturer of part)

(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)

2. Identification-Manufacturer's Serial No. of Part C59-139-1
129376E

(a) Constructed According to Drawing No. 129377E Drawing Prepared by The Babcock & Wilcox Co.
(This Shell Sub-Assembly consists of the following components)

(b) Description of Part Inspected Shell Sub-Assembly
16-139-1 Shell Sub-Assy. 59-139-1 Shell Course

3. Remarks: SERIAL NO. HEAT NO. SERIAL NO. HEAT NO.

<u>15-139-1</u>	<u>C-2789-3</u>	<u>6-139-1</u>	<u>C-3042-2</u>
<u>15-139-2</u>	<u>C-2775-3</u>	<u>6-139-2</u>	<u>C-2796-1</u>
<u>15-139-3</u>	<u>B-6776-1</u>	<u>6-139-3</u>	<u>C-2859-2</u>

(1) Shell Sub-Assembly for Class A Reactor Vessel

Note 1 - Status of fabrication shown on B&W Dwg. #MTV-QC-71555, Contract No. 610-0139-51-10-1, Certification of Design shall be furnished by others
(Brief description of service for which vessel part was designed)

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

Date October 21 19 69 Signed The Babcock & Wilcox Co.
(Manufacturer) *W.C. Huskey*

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXVXXVXXVXXVXXXXXXXXXXXXXXXXXXXXVXXVXX
Stress analysis report on file at XXXXXXXXVXXXXXXXXXXXXXXXXXXXXVXXXXXXXXVXXVXXXXXXXXXXXXXXXXXXXXVXXVXXVXX
Design specifications certified by XXXXXXXXXXXXXXVXXVXXXXXXXXXXVXX Prof. Enc. XXX State XXX Reg. No. XXXXXXXXVXX
Stress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXXVXX Prof. Eng. XXX State XXX Reg. No. VXXVXXVXXVXX

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 of Connecticut and employed by Hartford SBI & I Company of Hartford, Conn. have inspected the part of a pressure vessel described in this manufacturer's partial data report on October 15 19 69, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 October 21, 19 69

R. L. Moore
Inspector's Signature

Commissioners NB-3869
National Board of State and Local

PBAPS

Nat'l Bd. #3903

Revision 2
October 7, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT
A Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer
As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Mt. Vernon, Indiana
(Name and address of Manufacturer of part)
(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)
2. Identification-Manufacturer's Serial No. of Part El-139-1
129376E
(a) Constructed According to Drawing No. 129372E Drawing Prepared by The Babcock & Wilcox Co.
(b) Description of Part Inspected Lower Head Assembly
3. Remarks: El-139- Lower Head Assembly is comprised of parts as shown
on Babcock & Wilcox Drawing #MTV-QC-71555, Note: Sheets #1 & 2

One (1) Lower Head Assembly for Class A Reactor Vessel

Certification of Design shall be furnished by others
(Brief description of service for which vessel part was designed)

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

Date February 17 19 70 Signed The Babcock & Wilcox Co.
(Manufacturer)

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XX

Stress analysis report on file at XX

Design specifications certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. X XXXXXX

Stress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXXXX

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 of Connecticut and employed by Hartford SBI & I Company of Hartford, Conn. have inspected the part of a pressure vessel described in this manufacturer's partial data report on February 17 19 70, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 February 17 19 70

R. J. [Signature]
Inspector's Signature

Commission NB-3864
National Board or State and No.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

CC1339
 4. Shell: Material SA-302B T.S. 80,000 Nominal Thickness 6 1/4" in. Allowance _____ in. Diam. 20 11 3/8" in. Length 11 ft. 3 in.
 (Kind & Spec. No.) (Min. of Range Specified)
 5. Seams: Long Butt Weld H.T.¹ Yes R.T. Yes Efficiency N/A (If Class B)
 Girth Butt Weld H.T.¹ Yes R.T. Yes No. of Courses One(1)
 6. Heads: (a) Material SA-302B T.S. 80,000 (b) Material _____ T.S. _____
 Location CC1339 Crown Knuckle Elliptical Conical Hemispherical Flat Side to Press.
 (Top, bottom, ends) Thickness Radius Radius Ratio Apex Angle Radius Diameter (Conv. or Conc.)
 (a) Bottom 6 1/4" To 8" 125 11/16" 251 3/8"
 (b) _____
 If removable, bolts used _____ (Material, Spec. No., T.S., Size, Number) Other fastening _____ (Describe or attach sketch)
 Bottom Clad with 1/8" Min. thickness Stainless Steel
 7. Jacket Closure: _____ (Describe as ogee and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).

8. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
 at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Diam. _____ Thickness _____ in. Attachment _____
 (Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)
 Floating. Material _____ Diam. _____ Thickness _____ in. Attachment _____
 10. Tubes: Material _____ O.D. _____ in. Thickness _____ in. Attachment _____
 (Kind & Spec. No.) (Subject to pressure) (Welded, Bolted) (Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Allowance _____ in. Diam. _____ ft. in. Length _____ ft. in.
 (Kind & Spec. No.) (Min. of Range specified)
 12. Seams: Long _____ H.T.¹ _____ X.R. _____ Efficiency _____ %
 (If Class B)
 Girth _____ H.T.¹ _____ X.R. _____ No. of Courses _____
 13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
 Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure
 (Convex or Concave)
 (a) Top, bottom, ends _____ _____ _____ _____ _____ _____ _____ _____ _____
 (b) Channel _____ _____ _____ _____ _____ _____ _____ _____ _____
 If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____ (Describe or attach sketch)

14. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
 at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____
 16. Nozzles: MK. 7, 8, 17, 19, clad internally with 1/8" Min. thickness stn. stl.

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Recirc. Inlet	10	12"	Forg.	CC1332-2	6.716"	Integral	W/S End SA376 T.S.
Recirc. Outlet	2	28"	Forg.	CC1332-2	_____	Integral	W/S End SA376 T.S.
Jet Pump	2	4"	Forg.	CC1332-2	2.9732"	Integral	W/S End SA336
17. Inspection Manholes, No.	1	_____	_____	A503CL-2	_____	Integral	W/S End SA336
Liquid Cont. Vessel	1	_____	_____	CC1332-2	2.015"	Integral	W/S End SA336
Shroud Support	1	_____	_____	A503CL-2	_____	Integral	W/S End SA336
18. Supports: Skull	1	_____	_____	_____	_____	Attached	Butt Welding
(Yes or No)	_____	Lugs (Number)	_____	Legs (Number)	_____	Other (Describe)	Attached (Where & How)

¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.

Drain Nozzle No. 1, Dia. 2" Type Bar, Matl. SA105-II, CC1332-1, Integral
 How Attached - Welded CC1336
 CRD Nozzle 185 6" SB166-63 .750" Integral Wel

Nat'l Bd. #3903

Revision 1
August 26, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT

A Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer

610-0139-1

As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Mt. Vernon, Indiana
(Name and address of Manufacturer of part)

(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)

2. Identification-Manufacturer's Serial No. of Part A58-139-1

(a) Constructed According to Drawing No. 142117E Drawing Prepared by The Babcock & Wilcox Co.

(b) Description of Part Inspected Shell Course

3. Remarks: This Shell Course comprised of segments as follows:

SERIAL NUMBER	HEAT NUMBER
6-139-17	C-2761-2
6-139-18	C-2873-1
6-139-23	C-2894-2

Shell Course for Class A Reactor VesselCertification of Design shall be furnished by others

(Brief description of service for which vessel part was designed)

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

Date September 16 19 69 Signed The Babcock & Wilcox Co. W. P. Bushby
(Manufacturer)

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XXStress analysis report on file at XXDesign specifications certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXStress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXX

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 of Connecticut and employed by Hartford SBI & I Company of Hartford, Conn. have inspected the part of a pressure vessel described in this manufacturer's partial data report on September 16 19 69, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 September 16 19 69

R. J. Mason
Inspector's Signature

Commissions NB-3864
National Board or State and No.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material CC1339 Min. Thickness 80,000 1/8 in. Allowance 1/16 in. Corrosion 1/16 in. Diam. 20 ft. 11 3/8 in. Length 11 ft. 1 in.
(Kind & Spec. No.) (Min. of Range Specified)

5. Seams: Long Butt Weld H.T.¹ Yes R.T. Yes Efficiency ----- %
(If Class B)

Shell Course clad with 1/8" min. thickness stainless steel
Orth ----- H.T.¹ ----- R.T. ----- No. of Courses One

6. Heads: (a) Material ----- T.S. ----- (b) Material ----- T.S. -----
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Conv. or Conc.)
(Top, bottom, ends)
(a) -----
(b) -----
If removable, bolts used ----- (Material, Spec. No., T.S., Size, Number) Other fastening ----- (Describe or attach sketch)

7. Jacket Closure: -----
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).

8. Constructed for specified operating pressure² ----- psi at max. temp. ----- °F Charpy Impact ----- ft-lb
at temp. of ----- °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material ----- Diam. ----- Thickness ----- in. Attachment ----- (Welded, Bolted)
(Kind & Spec. No.) (Subject to pressure)

Floating. Material ----- Diam. ----- Thickness ----- in. Attachment -----
inches or gage. Number ----- Type ----- (Str. or U)

10. Tubes: Material ----- O.D. ----- in. Thickness ----- in. Attachment -----
(Kind & Spec. No.) (Subject to pressure)

Items 11-14 Incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material ----- T.S. ----- Nominal Thickness ----- in. Corrosion Allowance ----- in. Diam. ----- ft. ----- in. Length ----- ft. ----- in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long ----- H.T.¹ ----- X.R. ----- Efficiency ----- %
(If Class B)

Orth ----- H.T.¹ ----- X.R. ----- No. of Courses -----

13. Heads: (a) Material ----- T.S. ----- (b) Material ----- T.S. -----
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure (Convex or Concave)
(a) Top, bottom, ends -----
(b) Channel -----
If removable, bolts used (a) ----- (b) ----- (c) ----- Other fastening ----- (Describe or attach sketch)

14. Constructed for specified operating pressure² ----- psi at max. temp. ----- °F Charpy Impact ----- ft-lb
at temp. of ----- °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number ----- Size ----- Location -----

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Instrumentation	2	2"	Bar	SB-166	.601"	Integral	W/S End SA336
				CC1336			

17. Inspection Openings: Manholes, No. ----- Size ----- Location -----
Handholes, No. ----- Size ----- Location -----
Threaded, No. ----- Size ----- Location -----

18. Supports: Skirt ----- Lugs ----- (Number) Legs ----- (Number) Other ----- (Describe) Attached ----- (Where & How)

¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.

PBAPS

Nat'l Bd. #3903

Revision 1
August 26, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT

A Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer
610-0139-1 As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Mt. Vernon, Indiana
(Name and address of Manufacturer of part)

(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)

2. Identification-Manufacturer's Serial No. of Part A202-139-1

(c) Constructed According to Drawing No. 129394E Drawing Prepared by The Babcock & Wilcox Co.

(d) Description of Part Inspected Upper Head Segment Assembly

3. Remarks: This Head Segment Assembly is comprised of segments as follows:

SERIAL NUMBER	HEAT NUMBER
202-146-3	C-3262-1
202-146-5	C-3262-3
202-145-5	C-3042-3
202-145-1	C-3131-3
202-145-6	C-3042-3
202-146-6	C-3262-3

Head Segment Assembly For Class A Reactor Vessel

Certification of Design shall be furnished by others.

(Brief description of service for which vessel part was designed)

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

Date September 16 19 69 Signed The Babcock & Wilcox Co.
(Manufacturer)

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XX

Stress analysis report on file at XX

Design specifications certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXXX

Stress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXXX State XXX Reg. No. XXXXXXXXXX

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 of Connecticut and employed by Hartford SBI & I Company of Hartford, Conn.

have inspected the part of a pressure vessel described in this manufacturer's partial data report on September 16 19 69, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 September 16 19 69

R. E. Mason
Inspector's Signature

Commission NB-3864
National Board or State and No.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

Head 5. Seams: Long Butt Weld H.T.¹ Yes R.T. Yes Efficiency _____ %
(If Class B)

Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____
6. Heads: (a) Material SA-302B cc 1339.80, 000 (b) Material _____ T.S. _____

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Conv. or Conc.)
(a) <u>Top</u>	<u>4" Min.</u>					<u>125 11/16"-IR</u>		<u>Concave</u>
(b) _____								

If removable, bolts used _____ (Material, Spec. No., T.S., Size, Number) Other fastening _____ (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).

8. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Diam. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Diam. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11-14 Incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length² _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)

12. Seams: Long _____ H.T.¹ _____ X.R. _____ Efficiency _____ %
(If Class B)

Girth _____ H.T.¹ _____ X.R. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) Top, bottom, ends								
(b) Channel								

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____ (Describe or attach sketch)

14. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached

17. Inspection Manholes, No. _____ Size _____ Location _____

Openings: Handholes, No. _____ Size _____ Location _____

Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Legs _____ (Number) _____ Other _____ (Describe) Attached _____ (Where & How)

¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.

PBAPS

Nat'l Bd. #3903

Revision 1
August 26, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT
A' Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer
610-0139-1 As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Mt. Vernon, Indiana
(Name and address of Manufacturer of part)
(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)
2. Identification-Manufacturer's Serial No. of Part 209-139-1
(a) Constructed According to Drawing No. 129392E Drawing Prepared by The Babcock & Wilcox Co.
(b) Description of Part Inspected Closure Head Flange
3. Remarks: SERIAL NUMBER HEAT NUMBER
209-139-1 5P-2744 ABU 134

Closure Head Flange for Class A Reactor Vessel

Certification of Design shall be furnished by others

(Brief description of service for which vessel part was designed)

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

Date September 16 19 69 Signed The Babcock & Wilcox Co. W.C. B. Big
(Manufacturer)

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XX
Stress analysis report on file at XX
Design specifications certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXXX
Stress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXXX

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 of Connecticut and employed by Hartford SBI & I Company of Hartford, Conn. have inspected the part of a pressure vessel described in this manufacturer's partial data report on September 16 19 69, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 September 16 19 69

R. K. Mason
Inspector's Signature

Commission NB-3864
National Board or State and No.

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
(If Class B)Orth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) _____

(b) _____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)Closure Head Flange 245 3/4" I.D. x 279 1/2" O.D. - CC1332-2 Clad with 3/8" Min. A508 CL.2 Thickness Inconel on mating surface.
7. Jacket Closure: _____
(Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).8. Constructed for specified operating pressure¹ _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Diam. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Diam. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range specified)12. Seams: Long _____ H.T.¹ _____ X.R. _____ Efficiency _____ %
(If Class B)Orth _____ H.T.¹ _____ X.R. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure
(Convex or Concave)

(a) Top, bottom, ends _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)14. Constructed for specified operating pressure¹ _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ (Number) _____ Legs _____ (Number) _____ Other _____ (Describe) _____ Attached _____ (Where & How)

¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
(If Class B)Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) _____

(b) _____

If removable, bolts used (Material, Spec. No., T.S., Size, Number) Other fastening (Describe or attach sketch)

7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).8. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Diam. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Diam. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range specified)12. Seams: Long _____ H.T.¹ _____ X.R. _____ Efficiency _____ %
(If Class B)Girth _____ H.T.¹ _____ X.R. _____ No. of Courses _____

13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure
(Convex or Concave)

(a) Top, bottom, ends _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening (Describe or attach sketch)

14. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Inst. MK. 206	1	6"	Forg.	A508CL-2	2.609"	Integral	
Flange MK. 207	1	6"	Forg.	CC1332-2	.844"	Integral	Welded

Gr. II
CC1332-1 Thickness of Flange - 4.594"17. Inspection Openings: Manholes, No. _____ Size _____ Location _____
Manholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ (Number) _____ Legs _____ (Number) _____ Other _____ (Describe) Attached _____ (Where & How)

¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.

PBAPS

Nat'l Bd. #3903

Revision 1
August 26, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT

A Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer

610-0139

As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Barberton, Ohio
(Name and address of Manufacturer of part)
(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)
2. Identification-Manufacturer's Serial No. of Part See Remarks
131874E
(a) Constructed According to Drawing No. 122877E Drawing Prepared by The Babcock & Wilcox Co.
(b) Description of Part Inspected 6" Instrument Nozzle (MK. A-206)
3. Remarks: NOZZLE SER. NO. HEAT NO. SAFE END SER. NO. HEAT NO.
A206-127-4 ZT-3043 207-146-2 Q1Q1VW481M

6" Instrument Nozzle for Class A Reactor Vessel

Certification of Design shall be furnished by others
(Brief description of service for which vessel part was designed)

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

Date December 2 19 69 signed The Babcock & Wilcox Co. RE Lave
(Manufacturer)

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XX
Stress analysis report on file at XX
Design specifications certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXXXX
Stress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXXXX

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 Possession of _____ and employed by Hartford SBI & I Company of Hartford, Conn. have inspected the part of a pressure vessel described in this manufacturer's partial data report on October 16 19 69, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 November 7 19 69

H. M. Lave
Inspector's Signature

Commission Ohio 1143
National Board or State and No.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
(If Class B)Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) _____

(b) _____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)7. Jacket Closure: _____
(Describe as edge and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).8. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Diam. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Diam. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ in. Attachment _____
Number _____ Type _____ (Str. or U)

Items 11-14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)12. Seams: Long _____ H.T.¹ _____ X.R. _____ Efficiency _____ %
(If Class B)Girth _____ H.T.¹ _____ X.R. _____ No. of Courses _____

13. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure
(Convex or Concave)

(a) Top, bottom, ends _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)14. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Inst. MK. 206	1	6"	Forg.	A508CL.2	2.609"	Integral	
MK. 207 Flange	1	6"	Forg.	CC1332-2	.844"	Integral	Welded
				SA105, GR. II			
				CC1332-1			Thickness of Flange, 4.594"

17. Inspection Manholes, No. _____ Size _____ Location _____

Openings: Handholes, No. _____ Size _____ Location _____

Threaded, No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.

PBAPS

Nat'l Bd. #3903

Revision 2
October 7, 1970

FORM N-2 MANUFACTURERS' PARTIAL DATA REPORT

A Part of a Nuclear Vessel Fabricated by One Manufacturer for Another Manufacturer

610-0139

As required by the Provisions of the ASME Code Rules

1. (a) Manufactured by The Babcock & Wilcox Company, Barberton, Ohio
(Name and address of Manufacturer of part)

(b) Manufactured for The Chicago Bridge & Iron Company, Memphis, Tennessee
(Name and address of Manufacturer of completed nuclear vessel)

2. Identification-Manufacturer's Serial No. of Part See Remarks

(a) Constructed According to Drawing No. 129393E Drawing Prepared by The Babcock & Wilcox Co.

(b) Description of Part Inspected 4" Vent Nozzle (MK. A-204)

3. Remarks: NOZZLE SER. NO. HEAT NO. SAFE END SER. NO. HEAT NO.
A204-139-1 ZT-3043 205-139-1 WLW

4 " Vent Nozzle for Class A Reactor Vessel

Certification of Design Shall be furnished by others

(Brief description of service for which vessel part was designed)

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

Date February 19 19 70 Signed The Babcock & Wilcox Co. By RE L...
(Manufacturer)

Certificate of Authorization Expires April 10, 1972

CERTIFICATION OF DESIGN

Design information of file at XX

Stress analysis report on file at XX

Design specifications certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXX Reg. No. XXXXXXX

Stress analysis report certified by XXXXXXXXXXXXXXXXXXXXXXXXXXXX Prof. Eng. XXX State XXXX Reg. No. XXXXXXX

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 of Connecticut and employed by Hartford SBI & I Company of Hartford, Conn. have inspected the part of a pressure vessel described in this manufacturer's partial data report on September 18 19 69, and state that to the best of my knowledge and belief, the manufacturer has constructed this part in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this manufacturer's partial 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 February 20 19 70

RE L...
Inspector's Signature

Commission Ohio 1143
National Board or State and I No.

PBAPS

Nat'l Bd. #3903

FORM N-2 (back)

Items 4-8 Incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)5. Seams: Long _____ H.T.¹ _____ R.T. _____ Efficiency _____ %
(If Class B)Girth _____ H.T.¹ _____ R.T. _____ No. of Courses _____6. Heads: (a) Material _____ T.S. _____ (b) Material _____ T.S. _____
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press.
(Top, bottom, ends) (Conv. or Conc.)

(a) _____

(b) _____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)7. Jacket Closure: _____
(Describe as ogee and weld, bar, etc. If bar give dimensions, if bolted, describe or sketch).8. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items 9 and 10 to be completed for tube sections

9. Tube Sheets: Stationary. Material _____ Diam. _____ Thickness _____ in. Attachment _____
(Kind & Spec. No.) (Subject to pressure) (Welded, Bolted)

Floating. Material _____ Diam. _____ Thickness _____ in. Attachment _____

10. Tubes: Material _____ O.D. _____ in. Thickness _____ inches or gage. Number _____ Type _____
(Str. or U)

Items 11-14 Incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material _____ T.S. _____ Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft. _____ in. Length _____ ft. _____ in.
(Kind & Spec. No.) (Min. of Range Specified)12. Seams: Long _____ H.T.¹ _____ X.R. _____ Efficiency _____ %
(If Class B)Girth _____ H.T.¹ _____ X.R. _____ No. of Courses _____

13. Heads (a) Material _____ T.S. _____ (b) Material _____ T.S. _____

Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure
(Convex or Concave)

(a) Top, bottom, ends _____

(b) Channel _____

If removable, bolts used (a) _____ (b) _____ (c) _____ Other fastening _____
(Describe or attach sketch)14. Constructed for specified operating pressure² _____ psi at max. temp. _____ °F Charpy Impact _____ ft-lb
at temp. of _____ °F

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number _____ Size _____ Location _____

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	A508, CL. 2 Thickness	Reinforcement Material	How Attached
Vent MK. 204	1	4"	Forg.	CC1332-2 2.375"	Integral	
MK. 205 Flange	1	4"	Forg.	SA105GR. II .812"	Integral	Welded
				CC1332-1 - Thickness of Flange 3.812"		

17. Inspection Manholes. No. _____ Size _____ Location _____

Openings: Manholes. No. _____ Size _____ Location _____

Threaded. No. _____ Size _____ Location _____

18. Supports: Skirt _____ Lugs _____ Legs _____ Other _____ Attached _____
(Yes or No) (Number) (Number) (Describe) (Where & How)¹ If Postweld Heat-Treated.² List other internal or external pressure with coincident temperature when applicable.