

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

1. Manufactured by Combustion Engineering, Inc., C-E Avery Div., Old Dover Rd., Newington, N.H.
(Name and address of Manufacturer) 03801

2. Manufactured for C. E. Inc., 1000 Prospect Hill Rd., Windsor, Conn.
(Name and address of Purchaser)

3. Type Vert. Vessel No. (1275) (Mfrs. Serial) (N/A) (State & State No.) Natl. Bd. No. 246 Year Built 1978
(Horiz. or Vert.)

3a. Applicable ASME Code: Section III, Edition 1974, Addenda date S/1975, Case No. N/A Class II

4. Shell: Material SA516GR70 s. 70,000 Nom. Thk. 1.87 in. Allow. N/A In. Dia. 9.0 Ft. 0 In. Length 44 Fr. 7 In.
(Kind & Spec. No.) (Min. of range specified)

5. Seams: Long 3 H.T.¹ PWHT R.T. 100% Efficiency 100 %

6. Heads: (a) Material SA516GR70 T.S. 70,000 Girth 4 H.T.¹ PWHT R.T. 100% No. of Courses 3
(b) Material SA516GR70 T.S. 70,000

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) Top	1.92min	N/A	N/A	2-1	N/A	N/A	N/A	Concave
(b) Bottom	1.92min	N/A	N/A	2-1	N/A	N/A	N/A	Concave

If removable, bolts used N/A Other fastening N/A
700 INT/100EXT.200 Material, Spec. No., T.S., Size, Number) Drop Weight. N/A (Describe or Attach Sketch)
650 INT/70 EXT.300 Hydrostatic

7. Design Pressure² _____ psi at max. temp. _____ °F. at temp. of +60 °F. Charpy impact See MTRs ft-lb Pneumatic or } Test
Combination Press 883 psi.

8. Safety or Relief Valve Outlets: Number N/A Size N/A Location None located at this time.

9. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
A Discharge	1	14"	LF2	SA350	1.125	N/A	Welded
B Water Inlet	1	1"	INCO.600	SB166	.272	N/A	Welded

10. Inspection Manholes, No. 1 Size 16" R.F. Location Upper Head Bolted Cover
Openings: Handholes, No. N/A Size N/A Location N/A
Threaded, No. N/A Size N/A Location N/A

11. Supports: Skirt Yes Lugs 3 Legs No Other N/A Attached See back side
(Yes or No) (Number) (Number) (Describe) (Where & How)

12. Remarks: To store borated water under a pressurized nitrogen gas blanket for emergency injection into the reactor coolant system. J-2260000 component #21-15-27-4812-03
*material test reports (Data Book) Tank #4
(Brief description of purpose of the vessel--State Contents.)

We certify that the statements made in this report are correct and that this nuclear vessel conforms to the rules of construction of the ASME Code, Section III
Date 28 Nov 19 78 Signed C-E Avery Division By Arthur E. Peters
(Manufacturer)

Certificate of Authorization Expires March 17, 1981 Certificate of Authorization No. 2040

CERTIFICATION OF DESIGN

Design information on file at C. E. Inc., 1000 Prospect Hill Rd., Windsor, Conn.
Stress analysis report on file at C. E. Inc., 1000 Prospect Hill Rd., Windsor, Conn.
Design specifications certified by T. L. Kettles Prof. Eng. State N.Y. Reg. No. PE029729
Stress analysis report certified by J. H. Wawrzeniak Prof. Eng. State Mass. Reg. No. 29090

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Combustion Engineering, Inc., C-E Avery Div at Newington, N. H.
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 New Hampshire and employed by H.S.B. I. & I. Co., or Hartford, Conn.
have inspected the pressure vessel described in this Manufacturer's Data Report on November 20 19 78, and state that to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with the ASME Code Section III.
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 November 20 19 78
Inspector's Signature [Signature] Commissions 10242
National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-3 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 12, "Remarks".
Printed in U.S.A. (4/72) This form (E39) is obtainable from the ASME.

19549 below

** Revision 01

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

Sheet 1 of 2

1. Manufactured by Combustion Engineering, Inc.-5, C-E Avery Division, Newington, NH
(Name and address of Manufacturer)

2. Manufactured for Combustion Engineering, Inc., 1000 Prospect Hill Rd., Windsor, CN
(Name and address of Purchaser)

3. Type Vert Vessel No. (1275) (Horizontal or Vertical) (Mrs. Serial) (State & Serial No.) Naxl. Bd. No. 246 Year Built 1978

3a. Applicable ASME Code: Section III, Edition 1974, Addenda date 5/1975, Case No. N242-1 Class II

4. Shell: Material SA516GR70 Dr. s. 70,000 No. 1.87 In. Corr. Allow. --- In. Dia 9.0 Ft. 0 In. Length 44 Fr. 7 In.
(Kind & Spec. No.) (Min. of range specified)

5. Seams: Long 3 H.T.' PWHT R.T. 100% Efficiency 100 %
Girth 4 H.T.' PWHT R.T. 100% No. of Courses 3

6. Heads: (a) Material SA516 GR70 T.S. 70,000 (b) Material SA516 GR70 T.S. 70,000

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) <u>Top</u>	<u>1.92 Min</u>	---	---	<u>2-1</u>	---	---	---	<u>Concave</u>
(b) <u>Bottom</u>	<u>1.92 Min</u>	---	---	<u>2-1</u>	---	---	---	<u>Concave</u>

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

7. Design Pressure 700 INT/100 EXT. 2000F Drop Weight: --- Hydraulic Test: ---
650 INT/70 EXT. 3000F Charpy impact See MTR's Pneumatic or } Test
psi at max. temp. 3000F °F. or temp. of +60 °F. Combination Press 883 psi.

8. Safety or Relief Valve Outlets: Number --- Size --- Location None located at this time

9. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
<u>A Discharge</u>	<u>1</u>	<u>14"</u>	<u>LF2</u>	<u>SA350</u>	<u>1.125</u>	---	<u>Welded</u>
<u>B Water Inlet</u>	<u>1</u>	<u>1"</u>	<u>INCO.600</u>	<u>SB166</u>	<u>.272</u>	---	<u>Welded</u>

10. Inspection Manholes, No. 1 Size 16" R.F. Location Upper Head Bolted Cover
Openings: Handholes, No. --- Size --- Location ---
Threaded, No. --- Size --- Location ---

11. Supports: Skirt Yes Lugs 3 Legs No Other --- Attached See Sheet 2 of 2
(Yes or No) (Number) (Number) (Describe) (Where & How)

12. Remarks: To store borated water under a pressurized nitrogen gas blanket for emergency injection into the reactor coolant system. J-2260000 Component I.D. #21-15-27-4812-03
*material test reports (Data Book) Tank #4
** Revision 01 - Added the Code Case No.
(Brief description of purpose of the vessel—State Contents.)

¹If Postweld Heat-Treated.
²List other internal or external pressure with coincident temperature when applicable.
We certify that the statements made in this report are correct and that this nuclear vessel conforms to the rules of construction of the ASME Code, Section III. Combustion Engineering, Inc.,
Date MAY 7 1982 Signed C-E Avery Division By Diana C. Calmes
(Manufacturer)

Certificate of Authorization Expires March 17, 1981 Certificate of Authorization No. N-2040

CERTIFICATION OF DESIGN

Design information on file at Combustion Engineering, Inc., 1000 Prospect Hill Rd., Windsor, CN
Stress analysis report on file at Combustion Engineering, Inc., 1000 Prospect Hill Rd., Windsor, CN
Design specifications certified by T. I. Kettles Prof. Eng. State NY Reg. No. PE029729
Stress analysis report certified by J. H. Wawrzoniak Prof. Eng. State MA Reg. No. 29090

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Combustion Engineering, Inc., C-E Avery Div., Newington, NH
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 NH and employed by H.S.B.I. & I. Co. of Hartford, CN
have inspected the pressure vessel described in this Manufacturer's Data Report on November 28 1978, and state that to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with the ASME Code Section III.
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 May 6 1982 Inspector's Signature [Signature] Commission No. NB6342 NH134
National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-3 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 12, "Remarks".
Printed in U.S.A. (4/72) This form (839) is obtainable from the ASME, 345 E. 47th St., New York, N.Y. 10017

Revision 01

Sheet 2 of 2

- 1. Manufactured by Combustion Engineering, Inc., C-E Avery Division, Newington, NH
- 2. Manufactured for Combustion Engineering, Inc., 1000 Prospect Hill Rd., Windsor, CN
- 3. Type Vert Vessel No. 1275 226 Nat'l. Bd. No. 246 Year Built 1978
Mfrs. Serial # Job#
- 3a. Applicable ASME Code: Section III, Edition 1974 Addenda Date 5/75
Code Case N242-1 Class II

4. Shell has 1/8" min. roll bond cladding.

6. Heads have 1/8" welded clad.

9. Nozzles	Number	Dia. or Size	Type	Material	Thickness	How Attached	Reinfrmnt. Material
D Level Tap Upper	1	1"	INCO.600	SB166	.272	Welded	----
E Level Tap Lower	1	1"	INCO.600	SB166	.272	Welded	----
F Level Tap Upper	1	1"	INCO.600	SB166	.272	Welded	----
G Level Tap Lower	1	1"	INCO.600	SB166	.272	Welded	----
H Vent Relief	1	2"	INCO.600	SB166	.292	Welded	----
J N2 Inlet	1	1"	INCO.600	SB166	.272	Welded	----
Safe End	1	14"	INCO.600	SB166	1.125	Welded	----

- 11. Support Skirt welded to head.
Seismic lugs welded to shell. (4)
Lifting lugs welded to shell and head.

Nuts SA194 GR8 Bolts SA193 GRB6

- 9. Hydrostatic Test performed shall cover the entire vessel up to and including the weld where the safe end nozzle is welded to the discharge nozzle.

- 12. P. F. Avery Corp. Code Data Plate issued at direction of National Board.
C-E Avery Code Data Plates on order.

[Signature] 1/7/82
Authorized Nuclear Inspector Date

[Signature] 1/7/82
C-E Avery Date