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

(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only) **11-1154-9**

As required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by FABWELL CORPORATION (Name and address of Manufacturer) 8410 S. REGENCY DR. TULSA, OK. 74131 CPO NO. MPC18537-0001

2. Manufactured for MISSISSIPPI POWER 2992 WEST BEACH BLVD, GULFPORT, MS. 39502 (Name and address of Purchaser)

3. Location of Installation MISSISSIPPI POWER COMPANY-IGCC FACILITY. 8410 S. REGENCY DRIVE, DEKALB, MS. 39328 (Name and address)

4. Type VERTICAL (Horizontal or Vertical, tank) | 11-1154-4 (Manufacturer's serial number) | N/A (CRN) | D-5218 (Drawing No.) | 1856 (National Bd. No.) | 2012 (Year Built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME Boiler and Pressure Vessel Code. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 2010 (Year)

to N/A (Addenda (date)) | N/A (Code Case numbers) | N/A (Special Service per UG-120(d))

6. Shell SA-516-70 (Material spec. numbers, grade) | .625" (Nominal thickness) | .125" (Corr. Allow.) | 96" OD (94.75" ID) (Inner diameter) | 14' -8" (Length (overall))

7. Seams

| WELDED-SNGL | SPOT | .0.85 | NA | NA | WELDED-SNGL | SPOT | .0.85 | 2 |
|---|---|---|---|---|---|---|---|---|
| (Long. (welded, dbl, sngl, lap, butt)) | (R.T. (spot or full)) | (Eff,%) | (H.T. temp.) | (Time, hr) | (Girth. (welded, dbl, sngl, lap, butt)) | (R.T. (spot or full)) | (Eff,%) | (No. of courses) |

8. Heads: (a) Material SA-516-70 (Spec. numbers, grade) (b) Material SA-516-70 (Spec. numbers, 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 | .4375" | .125" | --- | --- | 2:1 | --- | --- | --- | CONCAVE |
| (b) | Bottom | .4375" | .125" | --- | --- | 2:1 | --- | --- | --- | CONCAVE |

If removable, bolts used (describe other fastenings) NA (Material spec. numbers, grade, size, number)

9. MAWP 50 PSI (Internal) | NA (External) | at max. temp. 800° F (Internal) | NA (External)

Min. design metal temp. 10° F at 50 PSI Hydro., ~~pneu., or comb~~. test pressure 65 PSI

Proof test N/A .

10. Nozzles, inspection, and safety valve openings:

| Purpose (Inlet, Outlet, Drain) | Number | Diameter or Size | Type | Material | Nominal Thickness | Reinforcement Material | How Attached | Location |
|---|---|---|---|---|---|---|---|---|
| Manway | 1 | 24" | 150# rfwn | SA106B | .500" | WELD | UW-16.1(c.) | Shell |
| Vapor Outlet | 1 | 20" | 150# rfwn | SA106B | .594" | WELD | UW-16.1(c.) | ----- |
| Inter. PR Inlet | 1 | 14" | 300# rfwn | SA106B | 1.25" | WELD | UW-16.1(c.) | ----- |
| Water Out/Low Pres. In | 1 / 1 | 8" | 150# rfwn | SA106B | .500" / .906 | WELD | UW-16.1(c.) | ----- |
| Initial Fill Inlet | 1 | 3" | 150# rfwn | SA106B | .600" | WELD | UW-16.1(c.) | ----- |

11. Supports: Skirt No (Yes/no) Lugs No (Number) Legs 4 (Number) Other NA (Describe) Attached Shell/Head-Welded (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: NA (Name of part, item number, Manufacturer's name and identifying stamp)

(1) 96" OD Steam Blowdown Tank Tag# UA-TK-4050, Capacity: 6,470 Gallons, Exempt from Impact test per Fig. UCS-66(b)(3) & Coincident Ratio. PSV by others in piping. UG-22 Loadings have been reviewed and applied per customer declarations.

Line 10. Drain, 1, 2", 3000# Cplg, SA-105, .312", Weld, UW-16.1(c.). And TW, 2, 1", 3000# Cplg, SA105, .217", Weld, UW-16.1(c.)

## CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statement made in this report are correct and that all details of design, material, construction, and workanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE,Section VIII,Division 1,"U" Certificate of Authorization Number 8684 expires 5/19/2013

Date 3-5-12 Co. name FABWELL CORPORATION (Manufacturer) Signed Dearld Herd (Representative)

## CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by FABWELL CORPORATION at 8410 S. Regency Dr. Tulsa, Ok. 74131

I, the undersigned, holding a valid commission issued by the National Board and Pressure Vessel Inspectors and/or State or Province of OKLAHOMA and employed by ONE BEACON AMERICA INSURANCE COMPANY OF LYNN, MA.

have inspected the component described in this Manufacturer's Data Report 3-5-12, 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 or property damage or loss of any kind arising from or connected with this inspection.

Date 3-5-12 Signed [signature] (Authorized Inspector) Commissions NB. 8432-A OK. 266 (National Board (incl. endorsements), State, Province, and number)

5680-NB1854

# FORM R-2 REPORT OF ALTERATION

In accordance with provisions of the National Board Inspection Code

262
(Form "R" Registration No.)

5680-NB1856
(PO No., Job No., etc.)

1a. Design performed by: **Performance Contractors, Inc.**
(Name of "R" organization responsible for design)

**9865 Pecue Lane, Baton Rouge, Louisiana, 70810, USA**
(address)

1b. Construction performed by: **Performance Contractors, Inc.**
(Name of "R" organization responsible for construction)

**9865 Pecue Lane, Baton Rouge, Louisiana, 70810, USA**
(address)

2. Owner of Pressure Retaining Item: **Mississippi Power Company**
(name)

**2992 West Beach Blvd., Gulfport, Mississippi, 39328, USA**
(address)

3. Location of Installation: **Mississippi Power Company - IGCC Facility**
(name)

**8410 South Regency Drive, Dekalb, Mississippi, 39328, USA**
(address)

4. Item identification: **Pressure Vessel** (boiler, pressure vessel or piping) Name of original manufacturer: **Fabwell Corp., Tulsa, OK**

5. Identifying nos.:

| 11-1154-4 | 1856 | ------ | ----- | 2012 |
|---|---|---|---|---|
| (mfg. serial no.) | (National Board No.) | (Jurisdiction No.) | (other) | (year built) |

6. NBIC Edition / Addenda: **2013** (edition) **NO ADDENDA** (addenda)

Original Code of Construction for Item: **ASME Section VIII, Div. 1** (name/ section/ division) **2010 Ed./No Addenda** (edition/ addenda)

Construction Code Used for Alteration Performed: **ASME Section VIII, Div. 1** (name/ section/ division) **2013 Ed./No Addenda** (edition/ addenda)

7a. Description of Design Scope:

**Performed calculations to verify Client Designed New Legs would meet minimum ASME Code Requirements. Calculations Verified Client Design met ASME Section VIII, Division I minimum Code Requirements.**

☐ Form R-4, Report Supplementary Sheet is attached

7b. Description of Construction Scope:

**Added (4 Ea.) New W10x68 legs to vessel. Performed UT Thickness in weld areas prior to welding to verify shell wall. Welded with *PCI WPS# 180 R4 using E7018, w/ 300°F Preheat//450°F Interpass Temperatures. Welded 3/8" fillet welds per PCI Sketch#5680-NB1856 SK1 R0. Performed 100% VT & PT of weld prep, root passes and final weld caps.**

☐ Form R-4, Report Supplementary Sheet is attached

Pressure Test, if applied **NONE** MAWP **50 psi**

8. Replacement Parts. Attached are Manufacturer's Partial Data Reports or Form R-3's properly completed for the following items of this report:

N/A
(name of part, item number, data report type or Certificate of Compliance, mfg's name and identifying stamp)

**FORM R-2 BACK**

262
(Form "R" No.)

9. Remarks: *PCI is an ASME recognized acronym for Performance Contractors, Inc.. NDE performed in lieu of Hydro, as permitted per N.B.I.C. Paragraph 4.4.2.5.c. Repair was also made on existing Northeast & Northwest Legs w/*PCI WPS 180 R4 w/300°F Preheat//450°F Interpass Temperatures.

## DESIGN CERTIFICATION

I, **Mark Boone**, certify that to the best of my knowledge and belief the statements in this report are correct and that the Design Change described in this report conforms to the *National Board Inspection Code.*
National Board "R" Certificate of Authorization No. **1984** expires on **04/17/2016**

Date **03/03/2015** **Performance Contractors, Inc.** (name of design organization) Signed (authorized representative)

## CERTIFICATE OF DESIGN CHANGE REVIEW

I, **Jim E. Roberts**, holding a valid Commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the jurisdiction of **TN, AR, TX, MS, AL** and employed by **OneCIS Insurance Company** of **Lynn, MA** have reviewed the design change as described in this report and state that to the best of my knowledge and belief such change complies with the applicable requirements of the *National Board Inspection Code.*

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, or property damage or loss of any kind arising from or connected with this inspection.

Date **03/27/2015** Signed (inspector) Commissions **11166A, TN4050, AR1282, TX1481, MS3179, AL87** (National Board and jurisdiction no.)

## CONSTRUCTION CERTIFICATION

I, **James Green**, certify that to the best of my knowledge and belief the statements in this report are correct and that all material, construction, and workmanship on this Alteration conforms to the National Board Inspection Code.
National Board "R" Certificate of Authorization No. **1984** expires on **04/17/2016**

Date **03/27/2015** **Performance Contractors, Inc.** (name of alteration organization) Signed (authorized representative)

## CERTIFICATE OF INSPECTION

I, **Jim E. Roberts**, holding a valid Commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the jurisdiction of **TN, AR, TX, MS, AL** and employed by **OneCIS Insurance Company** of **Lynn, MA** have inspected the work described in this report on **March 27, 2015** and state that to the best of my knowledge and belief this work complies with the applicable requirements of the National Board Inspection Code.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, or property damage or loss of any kind arising from or connected with this inspection.

Date **04/16/2015** Signed (inspector) Commissions **11166, TN4050, AR1282, TX1481, MS3179, AL87** (National Board and jurisdiction no.)