

WVU Medicine Application for NSR Permit
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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

**APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

- CONSTRUCTION** **MODIFICATION** **RELOCATION**
 CLASS I ADMINISTRATIVE UPDATE **TEMPORARY**
 CLASS II ADMINISTRATIVE UPDATE **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT** **MINOR MODIFICATION**
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office): WVU Hospitals Inc. (WVU Medicine)		2. Federal Employer ID No. (FEIN): 55-0643304	
3. Name of facility (if different from above): Ruby Memorial Hospital		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: 1 Medical Center Drive Morgantown, WV 26506		5B. Facility's present physical address: 1 Medical Center Drive Morgantown, WV 26506	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES , provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . – If NO , provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			
7. If applicant is a subsidiary corporation, please provide the name of parent corporation:			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i> ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES , please explain: These boilers are owns, maintained, and operated by WVU Medicine. – If NO , you are not eligible for a permit for this source.			
9. Type of plant or facility (stationary source) to be constructed, modified, relocated, administratively updated or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.): Healthcare Facility		10. North American Industry Classification System (NAICS) code for the facility: 622110	
11A. DAQ Plant ID No. (for existing facilities only): N/A		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):	

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

12A.

- For **Modifications, Administrative Updates or Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- For **Construction or Relocation permits**, please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP as Attachment B**.

N/A

12.B. New site address (if applicable): 1 Medical Center Drive Morgantown, WV 26506	12C. Nearest city or town: Morgantown	12D. County: Monongalia
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12.E. UTM Northing (KM): 4389894	12F. UTM Easting (KM): 589560	12G. UTM Zone: 175
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13. Briefly describe the proposed change(s) at the facility:
Addition of three (3) boilers, two (2) emergency generators, and one (1) fuel tank

14A. Provide the date of anticipated installation or change: / /	14B. Date of anticipated Start-Up if a permit is granted:
– If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: 06/01/2016	09/16/2016

14C. Provide a **Schedule** of the planned **Installation of/Change** to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
Hours Per Day 24 Days Per Week 7 Weeks Per Year 52

16. Is demolition or physical renovation at an existing facility involved? **YES** **NO**

17. **Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18. **Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (*if known*). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (*if known*). Provide this information as **Attachment D**.

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to **Plot Plan Guidance**) .
– Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F**.

23. Provide a **Process Description** as **Attachment G**.
– Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H**.

– For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I**.

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J**.

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.

28. Check all applicable **Emissions Unit Data Sheets** listed below:

- | | | |
|---|--|--|
| <input type="checkbox"/> Bulk Liquid Transfer Operations | <input type="checkbox"/> Haul Road Emissions | <input type="checkbox"/> Quarry |
| <input type="checkbox"/> Chemical Processes | <input type="checkbox"/> Hot Mix Asphalt Plant | <input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities |
| <input type="checkbox"/> Concrete Batch Plant | <input type="checkbox"/> Incinerator | <input checked="" type="checkbox"/> Storage Tanks |
| <input type="checkbox"/> Grey Iron and Steel Foundry | <input type="checkbox"/> Indirect Heat Exchanger | |
| <input checked="" type="checkbox"/> General Emission Unit, specify Boiler | | |

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below: N/A

- | | | |
|---|---|--|
| <input type="checkbox"/> Absorption Systems | <input type="checkbox"/> Baghouse | <input type="checkbox"/> Flare |
| <input type="checkbox"/> Adsorption Systems | <input type="checkbox"/> Condenser | <input type="checkbox"/> Mechanical Collector |
| <input type="checkbox"/> Afterburner | <input type="checkbox"/> Electrostatic Precipitator | <input type="checkbox"/> Wet Collecting System |

Other Collectors, specify N/A

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**.

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.

➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

YES NO

➤ If **YES**, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's **"Precautionary Notice – Claims of Confidentiality"** guidance found in the **General Instructions** as **Attachment Q**.

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

- | | |
|--|---|
| <input type="checkbox"/> Authority of Corporation or Other Business Entity | <input type="checkbox"/> Authority of Partnership |
| <input type="checkbox"/> Authority of Governmental Agency | <input type="checkbox"/> Authority of Limited Partnership |

Submit completed and signed **Authority Form** as **Attachment R**.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned **Responsible Official** / **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE Scott R. Bierler DATE: 8/18/16
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: <u>SCOTT R. BIERLER</u>		35C. Title: <u>DIR. Fac. MGMT</u>
35D. E-mail: <u>bierlers@wvmedcenter.org</u>	36E. Phone: <u>304-598-4141</u>	36F. FAX: <u>304-598-4958</u>
36A. Printed name of contact person (if different from above):		36B. Title:
36C. E-mail:	36D. Phone:	36E. FAX:

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

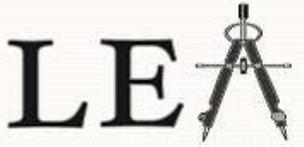
- | | |
|--|--|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate | <input checked="" type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input type="checkbox"/> Attachment B: Map(s) | <input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input checked="" type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input type="checkbox"/> Attachment D: Regulatory Discussion | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input checked="" type="checkbox"/> Attachment E: Plot Plan | <input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input checked="" type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input checked="" type="checkbox"/> Attachment P: Public Notice |
| <input checked="" type="checkbox"/> Attachment G: Process Description | <input type="checkbox"/> Attachment Q: Business Confidential Claims |
| <input type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input type="checkbox"/> Attachment R: Authority Forms |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table | <input type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input type="checkbox"/> Application Fee |

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
 - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
 - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
 - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
 - NSR permit writer should notify a Title V permit writer of draft permit,
 - Public notice should reference both 45CSR13 and Title V permits,
 - EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.



Lovorn Engineering Associates, LLC

700 Blaw Avenue ▲ Pittsburgh, PA 15238 ▲ P: 412•423•2660 ▲ F: 412•423•2661

ATTACHMENT A

Articles of Incorporation

Articles of Amendment to the Articles of Incorporation

FILED IN THE OFFICE OF
SECRETARY OF STATE OF
WEST VIRGINIA

MAY 8 1984
THIS DATE

ARTICLES OF INCORPORATION
OF
WEST VIRGINIA UNIVERSITY HOSPITALS, INC.

The undersigned, acting as incorporator of a corporation under Section 27, Article 1, Chapter 31 of the Code of West Virginia, adopts the following Articles of Incorporation for such corporation.

I. NAME

The undersigned agrees to become a corporation by the name of West Virginia University Hospitals, Inc.

II. DURATION

The existence of the corporation shall be perpetual.

III. PURPOSES

The purposes of the corporation shall be to operate one or more hospitals, and to transact any other lawful business for which a corporation may be incorporated under the laws of the State of West Virginia.

The corporation is organized exclusively for charitable, educational, and scientific purposes, including the making of distributions to organizations that qualify as exempt organizations under Section 501 (c) (3) of the Internal Revenue Code of 1954, or corresponding provisions of any future United States Internal Revenue law. No part of the net earnings of the corporation shall inure to the benefit of, or be distributable to, its directors, officers, members, or other private persons, except that the corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth herein. No substantial part of the activities of the corporation shall consist of carrying on propaganda or otherwise attempting to influence legislation, and the corporation shall not participate in or intervene in any political campaign by or on behalf of any candidate for public office. Notwithstanding any other provision of these articles, the corporation shall not conduct any activity not permitted to be carried on by a corporation exempt from federal income tax under Section 501 (c)(3), or a corporation contributions to which are deductible under Section 170, of the Internal Revenue Code of 1954 or corresponding provisions of any future United States Internal Revenue law.

IV. LOCATION

The principal office of the corporation shall be located in Morgantown, West Virginia, and its address shall be P.O. Box 6401, Medical Center Campus, West Virginia University, Morgantown, West Virginia 26506. The name of the initial person appointed to receive notice or service of process at such address is David J. Fine.

V. MEMBERS; BOARD OF DIRECTORS

A. This corporation shall have no members.

B. The Board of Directors of the corporation shall have the sole voting power of the corporation and shall constitute the sole governing body of the corporation.

C. The Board of Directors shall consist of seventeen (17) directors, all of whom shall be voting members of the Board, as follows:

1. The following people shall be ex officio members of the Board of Directors of the corporation:

a. The President of West Virginia University, who shall serve ex officio as Chairman of the Board of Directors;

b. The President of the West Virginia Board of Regents, or his designee;

c. The Vice Chancellor for Health Affairs of the West Virginia Board of Regents;

d. The Vice President for Health Sciences of West Virginia University;

e. The Vice President for Administration and Finance of West Virginia University;

f. The Chief of the Medical Staff of West Virginia University Hospitals;

g. The Dean of the School of Medicine of West Virginia University;

h. The Dean of the School of Nursing of West Virginia University; and

i. The Chief Executive Officer of the corporation.

2. One member of the Board of Directors shall be elected by a majority vote of the employees of the corporation; provided, however, that the initial employee-elected member shall be elected within a reasonable time after issuance of the corporate charter, when the corporation has hired its employees.

3. Seven general members shall be appointed by the Governor of West Virginia, subject to confirmation by the West Virginia Senate. These members shall be selected in accordance with the provisions of Section 6a, article 58, chapter 16, of the Code of West Virginia, as amended.

D. The general members of the Board shall serve for terms of six years each, and no more than two general members at any time shall be from the same congressional district. For the initial term, three general members shall serve for a term of two years, two for four years, and two for six years.

E. The director selected by the employees of the corporation shall serve for a term of two years, or until the earlier termination of his employment by the corporation.

F. The names and addresses of the initial Board of Directors are as follows:

NAME	ADDRESS
(Ex officio members:)	
<u>E. Gordon Gee</u>	<u>948 Riverview Drive Morgantown, West Virginia 26505</u>
<u>Carroll Simpkins</u>	<u>Post Office Box 1028 Beckley, West Virginia 25802</u>
<u>James Young</u>	<u>950 Kanawha Blvd. East Charleston, West Virginia 25301</u>
<u>John E. Jones</u>	<u>1286 Woodhaven Drive Morgantown, West Virginia 26505</u>
<u>Herman Mertins</u>	<u>729 South Hills Drive Morgantown, West Virginia 26505</u>
<u>Richard DeVaul</u>	<u>1334 Anderson Avenue Morgantown, West Virginia 26505</u>
<u>Lorita Jenab</u>	<u>Rt. 10, Box 14 Morgantown, West Virginia 26505</u>

(General Members:)

<u>Harriett Wright</u>	<u>413 Sussex Avenue Bluefield, WV 24701</u>
<u>Marie Doty</u>	<u>2212 Fourth Street Moundsville, WV 26041</u>
<u>Lena Barton</u>	<u>708 Braxton Gassaway, WV 26624</u>
<u>J. Robert Gwynne</u>	<u>4503 Staunton Avenue Charleston, WV 25304</u>
<u>Jack McLaughlin</u>	<u>Route #12, Box 140 Morgantown, WV 26505</u>
<u>Sam Kapourales</u>	<u>Post Office Box 220 Williamson, WV 25661</u>
<u>Eugene Claypole</u>	<u>General Delivery Granville, WV 26534</u>

G. Any vacancy in the position of employee member shall be filled by a vote of the employees. The Governor of West Virginia shall fill any vacancies in the general membership of the Board, subject to confirmation by the West Virginia Senate.

VI. FINANCIAL RECORDS

The audited financial records of the corporation shall be reported to the public and to the Joint Committee on Government and Finance of the West Virginia Legislature no less frequently than annually.

VII. INCORPORATOR

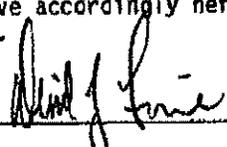
The name and address of the incorporator is as follows:

David J. Fine, Administrator
West Virginia University Hospital
Morgantown, West Virginia 26506

VII. DISSOLUTION

Upon the dissolution of the corporation, the Board of Directors shall, after paying or making provision for the payment of all liabilities of the corporation, transfer all the assets of the corporation to the West Virginia Board of Regents (or any successor thereto) for the use and benefit of West Virginia University.

I, THE UNDERSIGNED, for the purpose of forming a nonprofit corporation under the laws of the State of West Virginia, do make and file these Articles of Incorporation, and have accordingly hereunto set my hand this 7th day of May, 1984.



David J. Fine
Incorporator

STATE OF WEST VIRGINIA,

COUNTY OF MONONGALIA, to-wit:

I, Francoise D. Stamber, a Notary Public in and for the County and State aforesaid, hereby certify that David J. Fine, whose name is signed to the foregoing Articles, this day personally appeared before me in my said County and acknowledged his signature to be the same.

Given under my hand and official seal this 7th day of May, 1984.

My commission expires November 30, 1989.

Francoise D. Stamber
Notary Public in and for the
County and State aforesaid

(Seal)

ARTICLES OF INCORPORATION PREPARED BY:

Jackson, Kelly, Holt & O'Farrell
P.O. Box 553
Charleston, West Virginia 25332



J. A. James Manchin, Secretary of State of the State of West Virginia, hereby certify that

I have received in my Office, duplicate originals of
ARTICLES OF AMENDMENT TO THE ARTICLES OF INCORPORATION
of WEST VIRGINIA UNIVERSITY HOSPITALS, INC.

The said Articles of Amendment were duly signed and verified pursuant to provisions of Chapter 31, Article 1, Section 31 of the Official Code of West Virginia, 1931, as amended, and are hereby found to conform to law. Accordingly therefore, I now issue this

CERTIFICATE OF AMENDMENT TO THE ARTICLES OF INCORPORATION
of the hereinabove named corporation, and I attach hereto, a duplicate original of said Articles of Amendment.

GOD SAVE THE PRECIOUS STATE OF WEST VIRGINIA!



Given under my hand and the Great Seal of the said State at the City of Charleston, this

TWENTIETH day of
AUGUST 1934

J. James Manchin
Secretary of State.

FILED IN THE OFFICE OF
SECRETARY OF STATE OF
WEST VIRGINIA

THIS DATE AUG 20 1984

ARTICLES OF AMENDMENT
TO
ARTICLES OF INCORPORATION
OF
WEST VIRGINIA UNIVERSITY HOSPITALS, INC.
a nonprofit corporation

Pursuant to the provisions of Section 147, Article 1, Chapter 31 of the Code of West Virginia, the undersigned nonprofit corporation adopts the following Articles of Amendment to its Articles of Incorporation:

FIRST: The name of the corporation is West Virginia University Hospitals, Inc.

SECOND: The following resolution amending the Articles of Incorporation of the corporation was adopted by the corporation on July 9, 1984 in the manner prescribed by Section 147, Article 1, Chapter 31 of the Code of West Virginia.

RESOLVED, that the first paragraph of Article III of the Articles of Incorporation of the corporation, being the purpose clause of said Articles, be amended and restated in its entirety as follows:

The purposes of the corporation shall be to operate one or more hospitals in order to provide patient care, including specialized services not widely available in West Virginia, and to facilitate clinical education and research consistent with Article 11C of Chapter 18 of the Code of West Virginia. In addition, the corporation may engage in any other charitable, educational and scientific activities which are lawful for nonprofit corporations incorporated under the laws of the State of West Virginia and authorized by section 501(c)(3) of the Internal Revenue Code for corporations qualifying thereunder as organizations exempt from the federal income tax.

THIRD: The corporation has no members. The aforesaid amendment was adopted at a meeting of the Board of Directors on July 9, 1984, at which meeting the amendment received the vote of a majority of the directors in office. Dated this 26 day of July, 1984.

WEST VIRGINIA UNIVERSITY
HOSPITALS, INC.

BY [Signature]
Its President

and [Signature]
Its Secretary

STATE OF WEST VIRGINIA,
COUNTY OF MONONGALIA, To-wit:

The undersigned notary public does hereby certify that on this 27th day of July, 1984, personally appeared before me David J. Fine, who, being by me first duly sworn, declared that he is the President of West Virginia University Hospitals, Inc., that he signed the foregoing document as President of the corporation and that the statements therein contained are true.

My commission expires November 30, 1989.

Francis Struher
Notary Public

(Notarial Seal)

PREPARED BY:

James H. Nix
Jackson, Kelly, Holt & O'Farrell
1500 One Valley Square
P. O. Box 553
Charleston, West Virginia 25322

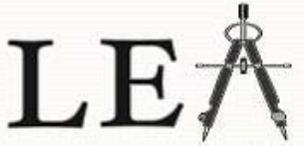
SS01AMD

SECRETARY OF STATE
AMENDMENT SCREEN

CORP. NAME: WEST VIRGINIA HEALTH, EDUCATION & RESEARCH CORPORATION

CODE	DATE	AMENDMENT
	05/12/1997	MERGER; MERGING WEST VIRGINIA HEALTH, EDUCATION & RESEARCH CORPORATION A WV CORP WITH AND INTO WEST VIRGINIA UNIVERSITY HOSPITALS, INC. A WV CORP THE SURVIVOR.

"ENTER" = TO APPLY CHANGES "PF15" = TO RETURN TO MENU
"PF19" = TO PAGE UPWARD "PF20" = TO PAGE DOWNWARD
"PF16" = TO GO TO BROWSE



ATTACHMENT C

Installation Schedule

The heating boilers have been installed and are scheduled for manufacturer's start-up on September 19, 2016.

The emergency generators have been installed and are scheduled for manufacturer's start-up in mid-October 2016.

The fuel oil tanks are currently being installed with a scheduled completion date of early October 2016.

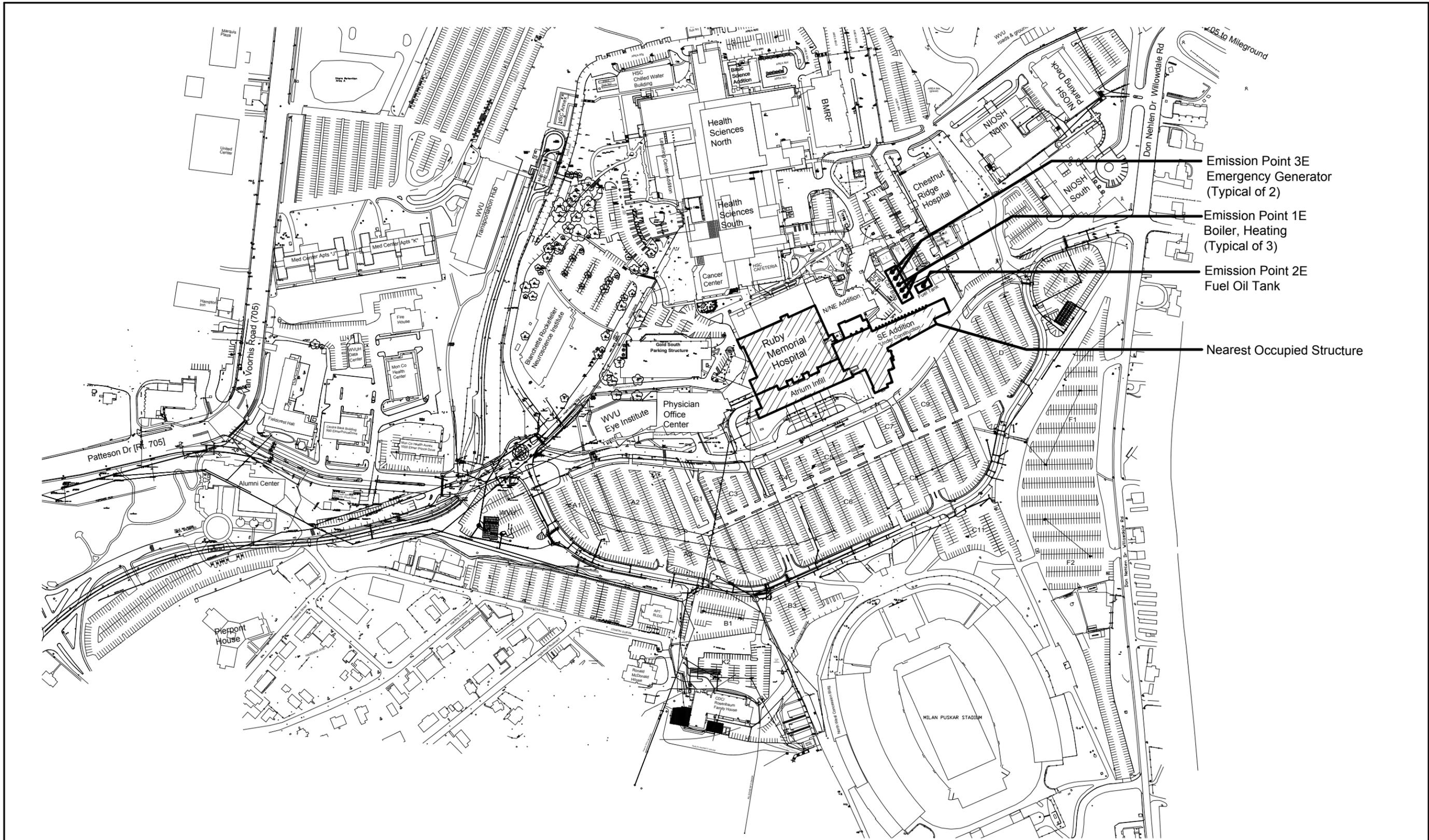


Lovorn Engineering Associates, LLC

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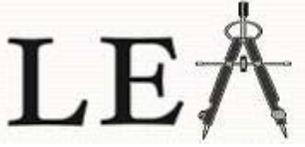
ATTACHMENT E

Plot Plan



- Emission Point 3E
Emergency Generator
(Typical of 2)
- Emission Point 1E
Boiler, Heating
(Typical of 3)
- Emission Point 2E
Fuel Oil Tank
- Nearest Occupied Structure

 LOVORN ENGINEERING ASSOCIATES, LLC 700 BLAW AVENUE, SUITE 200 PITTSBURGH, PA 15238 (412) 423-2681 PHONE (412) 423-2661 FAX PROJECT NO. 12-153	PROJECT TITLE:	DRAWING TITLE:	DRAWN BY:	DATE:
	Southeast Tower and Additions	Site Plan	DJK	9-20-2016
			CHECKED BY:	SCALE:
			KLL	NOT TO SCALE
			CAD DWG. FILE:	REF. DWG.:
			-	
		ISSUED WITH:	SKETCH NO.:	
			SK-S-1	

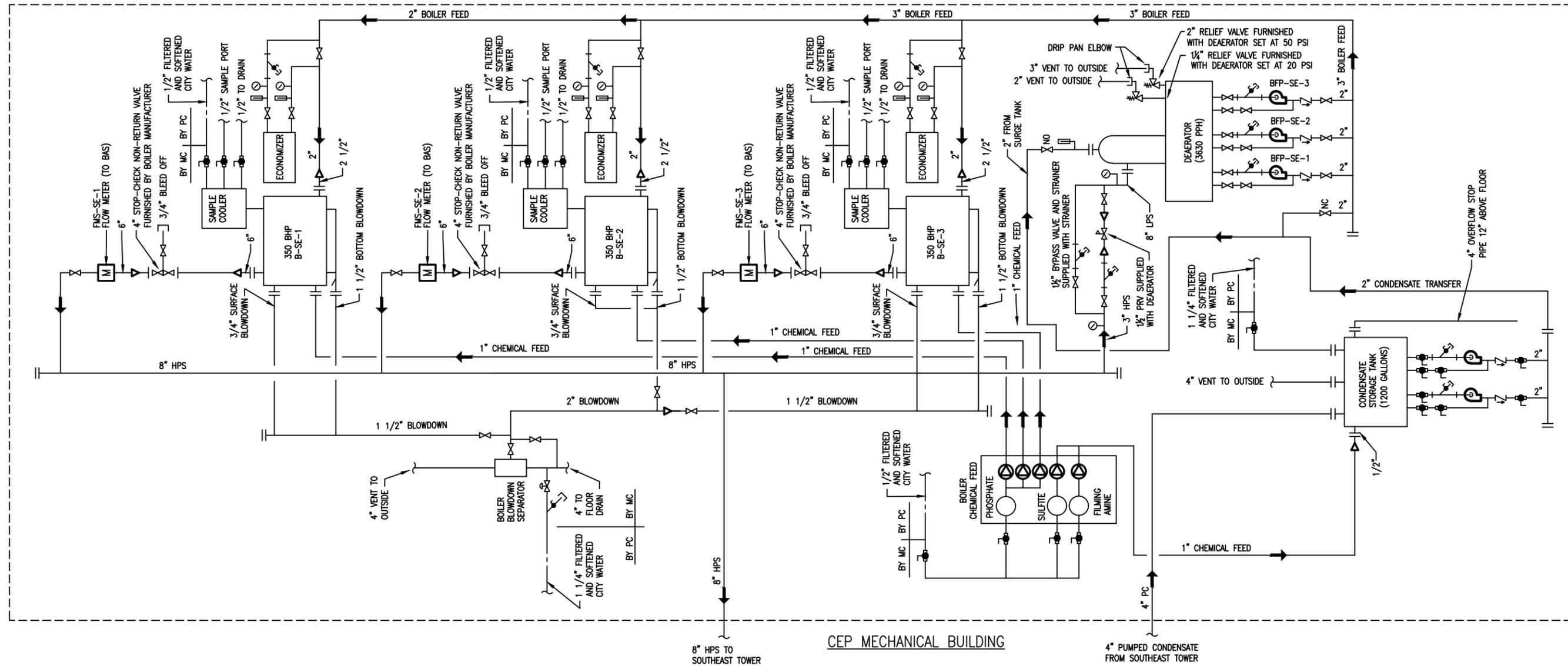


Lovorn Engineering Associates, LLC

700 Blaw Avenue ▲ Pittsburgh, PA 15238 ▲ P: 412•423•2660 ▲ F: 412•423•2661

ATTACHMENT F

Process Flow Diagrams



LOVORN ENGINEERING ASSOCIATES, LLC
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 PROJECT NO. 12-153

PROJECT TITLE:
 Southeast Tower and Additions

DRAWING TITLE:
 Steam System Schematic

DRAWN BY: DJK	DATE: 9-20-2016
CHECKED BY: KLL	SCALE: NOT TO SCALE
CAD DWG. FILE:	REF. DWG.: M401
ISSUED WITH: M401	SKETCH NO.:
	SK-M-401-1

ELECTRICAL NOTES

- 1 EC TO INSTALL E-STOP PUSH BUTTONS COMPLETE WITH SAFETY COVER (FURNISHED BY CLEVELAND BROTHERS) AND EXTEND #14 AWG IN 3/4" FROM PUSH BUTTON STATION TO THEIR RESPECTIVE GENERATOR CONTROL PANEL.
 * FINAL TERMINATION AT GENERATOR CONTROL PANEL BY CLEVELAND BROTHERS.
- 2 THE EC SHALL INSTALL THE ELECTRICAL COMPONENTS, FURNISHED BY CLEVELAND BROTHERS, ASSOCIATED WITH THE REVERSE PUMPING SYSTEM MODIFICATIONS. THE EC SHALL FURNISH AND INSTALL ALL NECESSARY POWER, CONTROL AND SIGNAL WIRING TO INCORPORATE THE NEW DAY TANKS REVERSE PUMPING SYSTEM COMPONENTS, CONSISTING OF:
 1. TWO (2) - 1 HORSEPOWER MOTORS, MOTOR STARTERS AND HGA SWITCHES.
 2. TWO (2) - LEVEL PROBES
 - a. 95% - HIGH
 - b. 90% - PUMP OFF
 - c. 50% - PUMP ON
 - d. 40% - LOW
 3. TWO (2) LAG FLOATS (SET AT 45%)
- 3 IN ADDITION THE EC SHALL FURNISH AND INSTALL CONTROL AND SIGNAL WIRING TO INCORPORATE THE NEW AUTOMATED LOGIC CONTROL PANEL LOCATED ON THE WALL ADJACENT TO THE DUPLEX FUEL PUMPS, WITH THE COMPONENTS LISTED ABOVE. DAY TANK LEAK DETECTION, PNEUMERATOR TMS2000 CONTROLLER, LOCATED IN BOILER OFFICE AND THE FUEL PUMP CONTROLS.
- 4 EC TO FURNISH POWER TO PNEUMERATOR TMS2000 CONTROL PANEL WHICH INCLUDES THREE DEDICATED GROUND WIRES BACK TO THE ELECTRICAL PANEL FOR INTRINSIC SAFETY.
- 5 THE MC SHALL INSTALL SIGNAL WIRING IN A DEDICATED 3/4" FROM THE PNEUMERATOR CONTROL PANEL TO THE LEAK SENSORS AND FUEL LEVEL PROBE LOCATED OUTSIDE THE BUILDING.
- 6 THE MC SHALL INSTALL CONTROL WIRING IN 3/4" FROM THE DUPLEX FUEL PUMPS TO THE NORMAL CLOSED SOLENOID VALVES LOCATED ON TOP OF THE FUEL TANK.
- 7 THE MC SHALL INSTALL SIGNAL WIRING FROM THE PNEUMERATOR CONTROL PANEL TO THE TANK HIGH LEVEL ALARM LOCATED OUTSIDE THE BUILDING AT THE TANK FILL.

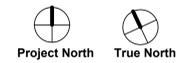
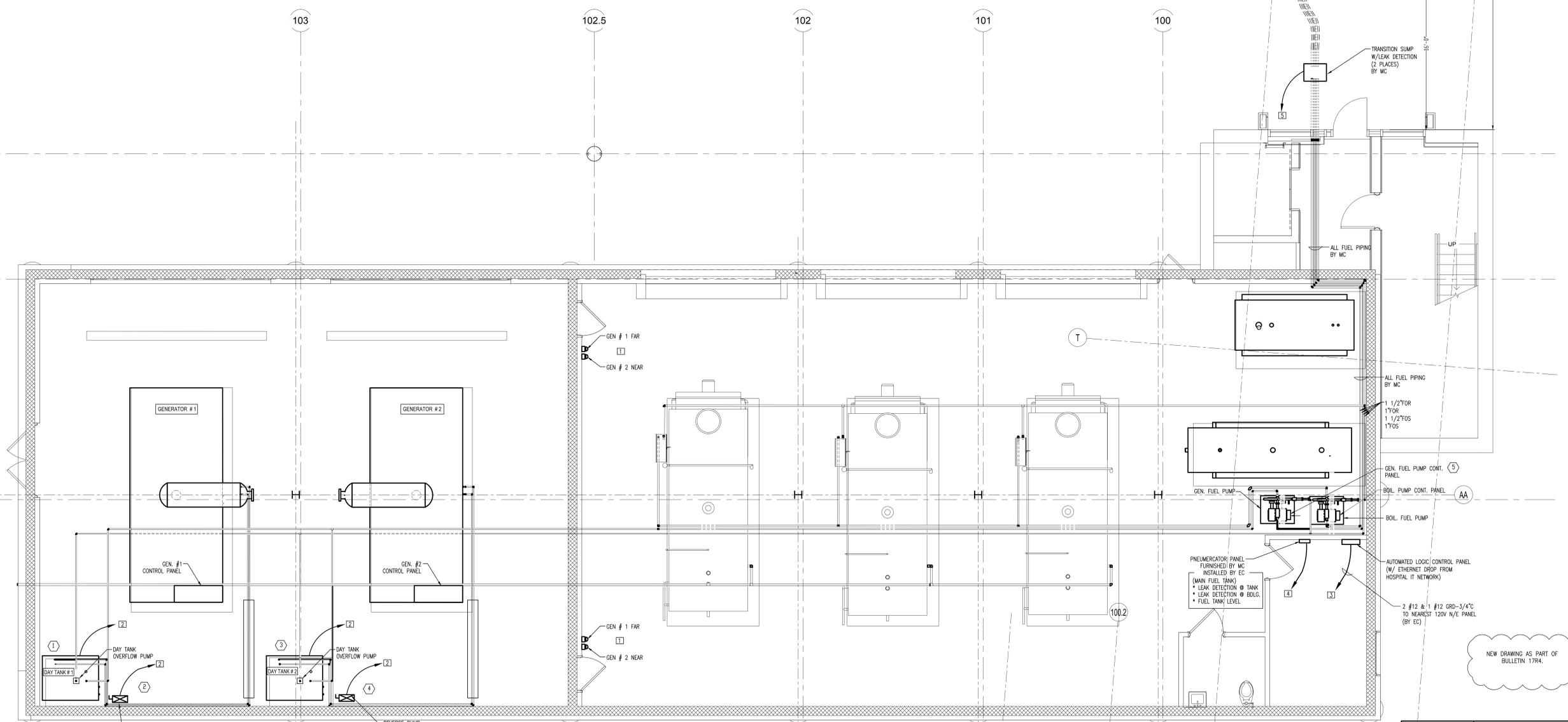
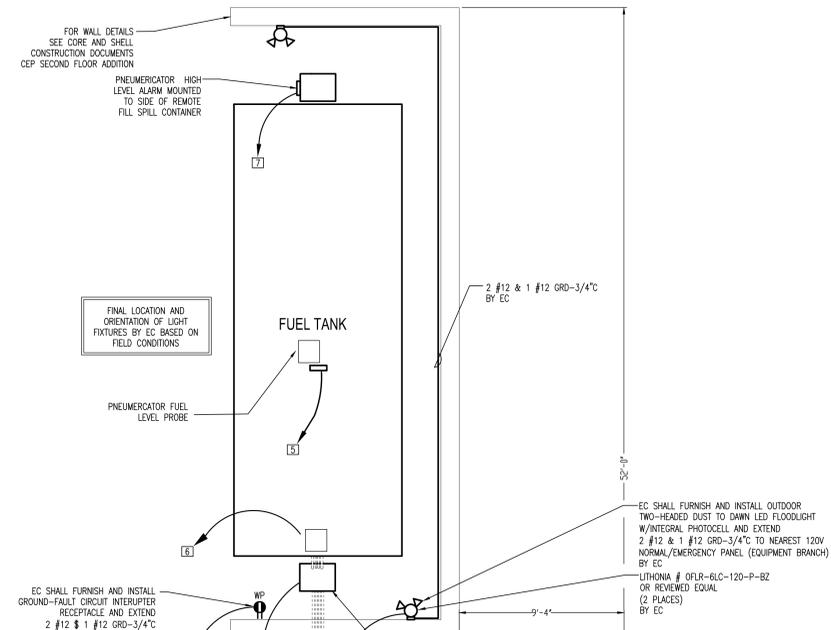
- 1 CONTROL/SIGNAL - DAY TANK #1
- * PUMP OFF (90%)
 - * PUMP ON (50%)
 - * LAG FLOAT (45%)
 - ** LEAK DETECTION
 - ** HI-LEVEL ALARM
 - ** LO-LEVEL ALARM (40%)
- * EC TO FURNISH AND INSTALL (6) #14-3/4" FROM DAY TANK TO GENERATOR FUEL PUMP CONTROL PANEL.
- ** EC SHALL FURNISH AND INSTALL (6) #14-3/4" FROM DAY TANK TO AUTOMATED LOGIC CONTROL PANEL.

- 2 REVERSE PUMP COMBINATION MOTOR STARTER - DAY TANK #1
- * HAND-OFF-AUTO SELECTOR SWITCH
 - * START
 - * STOP
 - ** PUMP RUN STATUS
- * EC TO FURNISH AND INSTALL (6) #14-3/4" FROM DAY TANK TO GENERATOR FUEL PUMP CONTROL PANEL.
- ** EC SHALL FURNISH AND INSTALL (2) #14-3/4" FROM DAY TANK TO AUTOMATED LOGIC CONTROL PANEL.

- 3 CONTROL/SIGNAL - DAY TANK #2
- * PUMP OFF (90%)
 - * PUMP ON (50%)
 - * LAG FLOAT (45%)
 - ** LEAK DETECTION
 - ** HI-LEVEL ALARM
 - ** LO-LEVEL ALARM (40%)
- * EC TO FURNISH AND INSTALL (6) #14-3/4" FROM DAY TANK TO GENERATOR FUEL PUMP CONTROL PANEL.
- ** EC SHALL FURNISH AND INSTALL (6) #14-3/4" FROM DAY TANK TO AUTOMATED LOGIC CONTROL PANEL.

- 4 REVERSE PUMP COMBINATION MOTOR STARTER - DAY TANK #2
- * HAND-OFF-AUTO SELECTOR SWITCH
 - * START
 - * STOP
 - ** PUMP RUN STATUS
- * EC TO FURNISH AND INSTALL (6) #14-3/4" FROM DAY TANK TO GENERATOR FUEL PUMP CONTROL PANEL.
- ** EC SHALL FURNISH AND INSTALL (2) #14-3/4" FROM DAY TANK TO AUTOMATED LOGIC CONTROL PANEL.

- 5 GEN. PUMP CONT. PANEL TO AUTOMATED LOGIC CONTROL PANEL
- * PUMP 1 STOP
 - * PUMP 2 STOP
 - ** PUMP 1 RUN COMMAND STATUS
 - ** PUMP 1 RUN STATUS
 - ** PUMP 2 RUN COMMAND STATUS
 - ** PUMP 2 RUN STATUS
 - ** FUEL OIL FLOW STATUS
- * EC TO FURNISH AND INSTALL (4) #14-3/4" FROM DAY TANK TO GENERATOR FUEL PUMP CONTROL PANEL.
- ** EC SHALL FURNISH AND INSTALL (12) #14-3/4" FROM DAY TANK TO AUTOMATED LOGIC CONTROL PANEL.



No.	Date	Description
20	4-27-2016	BULLETIN 17R4
19	3-17-2016	BULLETIN 17R2

Issue Date - 05-02-14
Southeast Tower & Additions

West Virginia University
 Healthcare
 WVUH Project No. 9205

1 Medical Center Drive
 Morgantown, WV 26506

Electrical Plan
 Southeast
 Mech. Bldg.

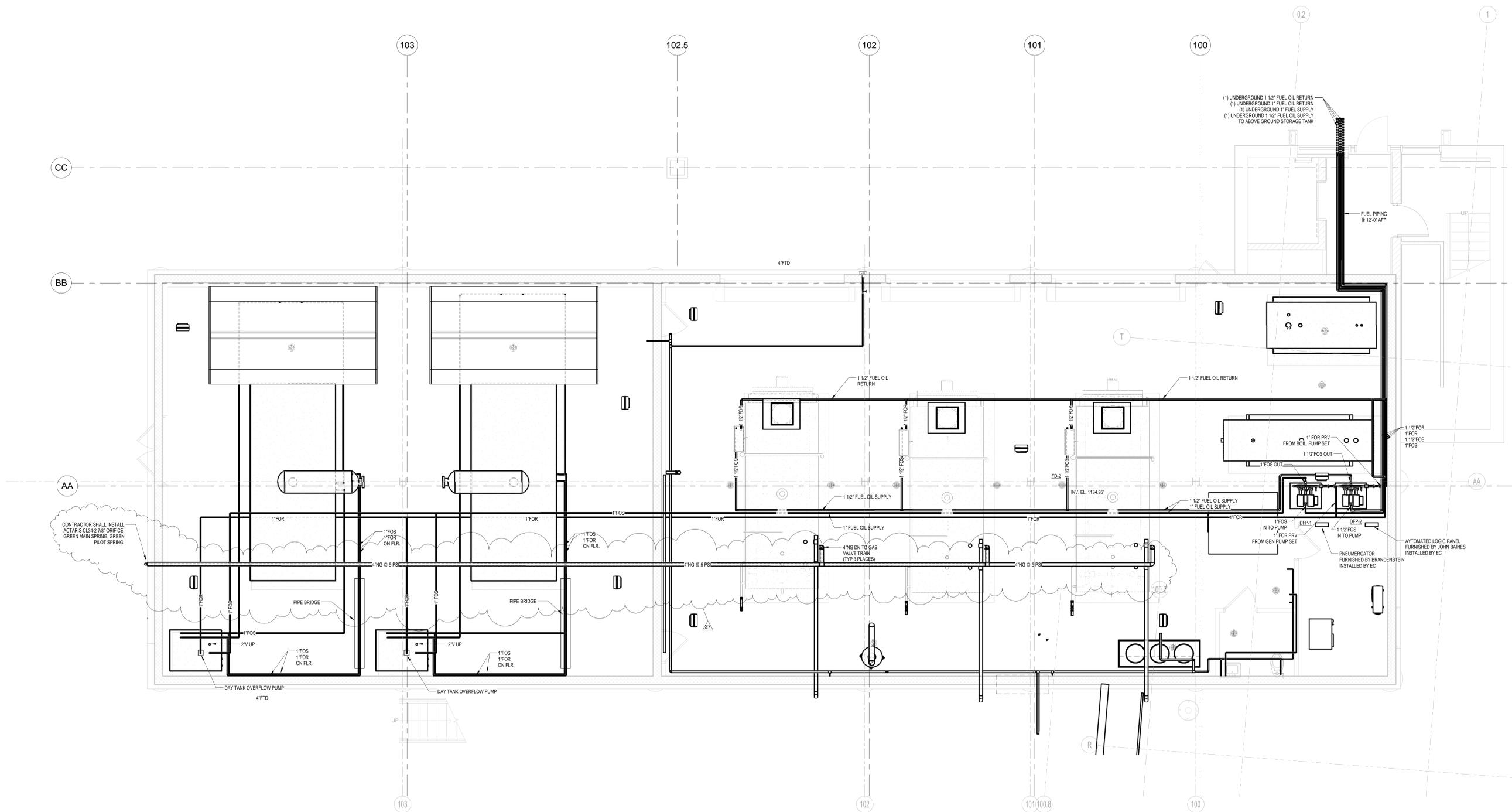
Bulletin 17R2

IKM Project Number
 12-077

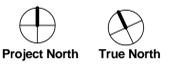
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Project Number: 12-153
 Drawn By: JCM
 Designed By: DFB



1 Southeast Mechanical Building Plumbing Plan
 P304 1/4" = 1'-0"



No.	Date	Description
27	08-4-2016	Bulletin 20R6
19	3/17/2016	Bulletin 17R2
17	1/14/2016	Bulletin 17R1
12	Date 12	Bulletin 17
9	12-11-2014	Response to RFI-97

Revisions

Issue Date - 7-16-2015
Southeast Tower & Additions

WVUH

SouthEast Mechanical Building Plumbing Plan

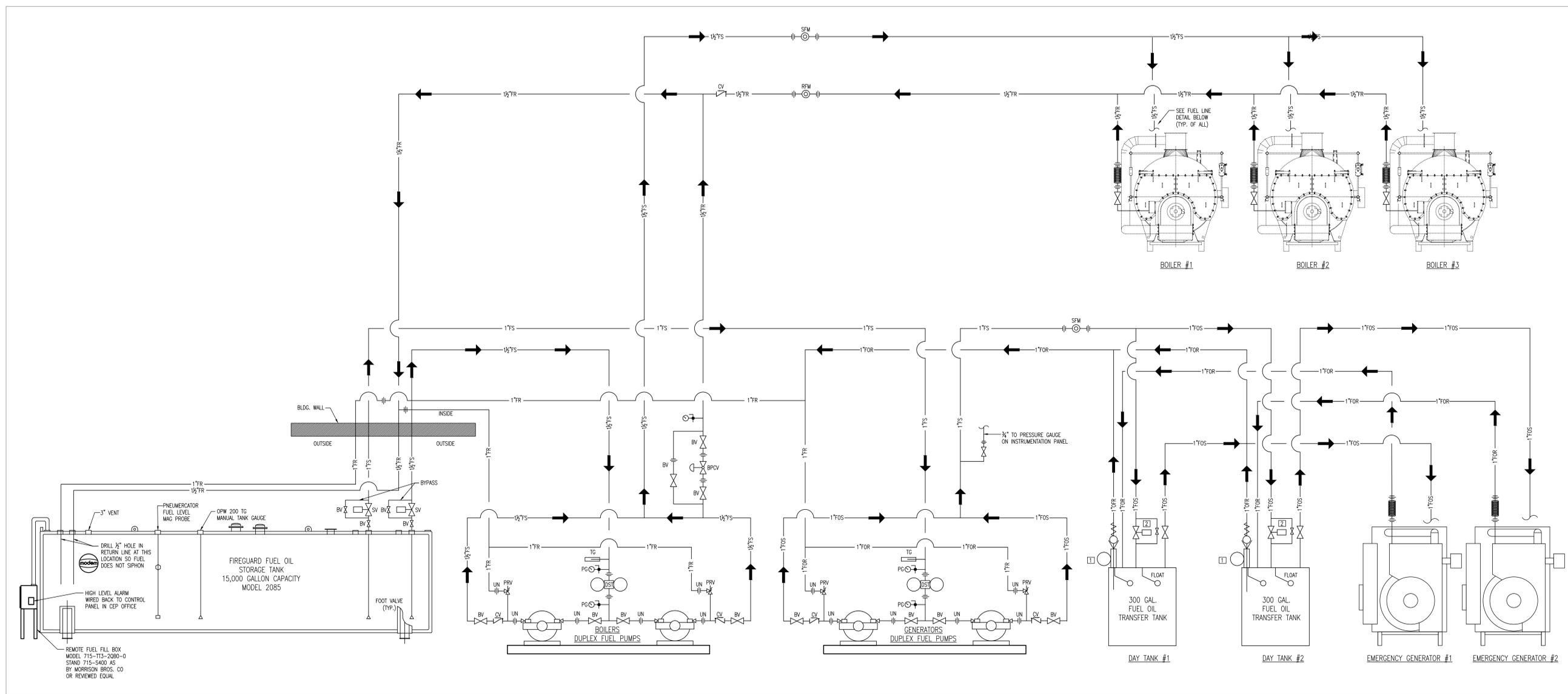
Progress Set - Bulletin 13

IKM Project Number 12-077

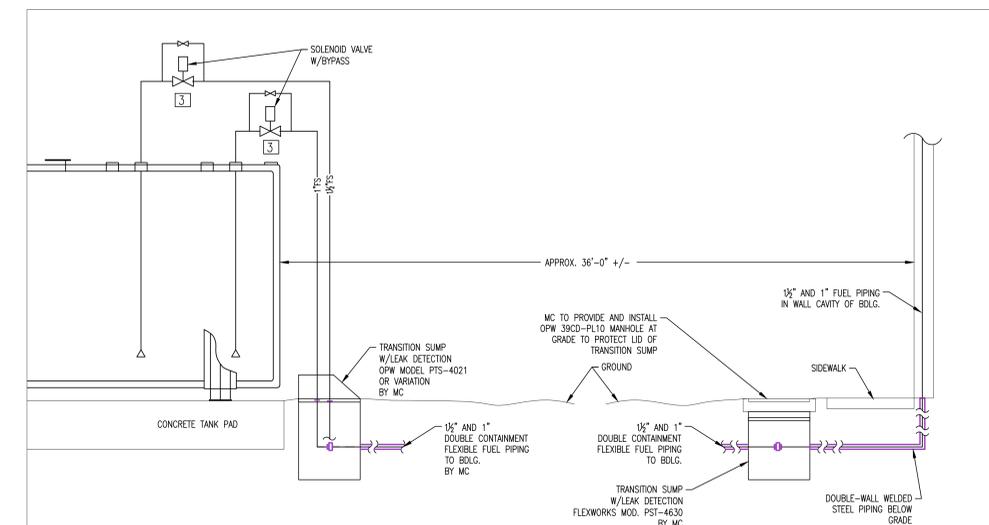
LOVORN ENGINEERING ASSOCIATES, LLC
 700 HILARY AVENUE, SUITE 200
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DRAWING REISSUED IN ITS ENTIRETY.

9/20/2016 11:40:13 AM



1 Plumbing - Number 2 Fuel Oil Systems - Schematic Piping Diagram
 P603 SCALE: NTS

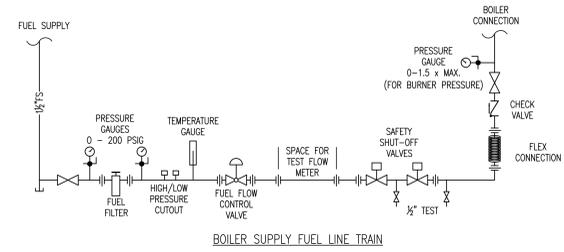


2 Plumbing - Sump Pit and Fuel Piping Detail
 P603 SCALE: NTS

- LEGEND**
- BV BALL SHUT-OFF VALVE
 - BPCV FUEL OIL BACK PRESSURE CONTROL VALVE
 - CV CHECK VALVE
 - DST DUPLEX FUEL STRAINER
 - FR FUEL RETURN
 - FS FUEL SUPPLY
 - OFR OVERFLOW RETURN
 - PG PRESSURE GAUGE
 - PRV PRESSURE RELIEF VALVE
 - SFM SUPPLY FLOW METER
 - TG TEMPERATURE GAUGE
 - UN UNION

- SYMBOLS**
- BALL SHUT-OFF VALVE
 - BALL CONE VALVE
 - CHECK VALVE
 - DUPLEX FUEL STRAINER
 - FUEL FILTER
 - FLEXIBLE CONNECTION
 - OVERFLOW RETURN PUMP
 - PRESSURE GAUGE
 - PRESSURE RELIEF VALVE
 - SOLENOID VALVE
 - TEMPERATURE GAUGE
 - UNION

- NOTES**
- [1] OVERFLOW RETURN PUMPS AND ASSOCIATED PUMP ON/OFF CONTROLS (PUMPS MUST BE GREATER THAN 7 GPM). PUMPS TURN ON WHEN DAY TANKS ARE FILLED MORE THAN 90% CAPACITY AND TURN OFF WHEN TANKS ARE LESS THAN 70% FULL. PROVIDE HAND-OFF-AUTO CONTROL SWITCH FOR EACH PUMP. PUMPS AND ALL ASSOCIATED CONTROLS FURNISHED BY CLEVELAND BROTHERS AND INSTALLED BY MC.
 - [2] NORMALLY CLOSED SOLENOID VALVES OPEN WHEN DAY TANK FUEL LEVEL DROPS BELOW 50% AND CLOSE WHEN DAY TANKS ARE FILLED TO MORE THAN 90% RESPECTIVELY.
 - [3] NORMALLY CLOSED SOLENOID VALVES OPEN WHEN ITS RESPECTIVE DUPLEX FUEL OIL PUMP SET IS RUNNING.



No.	Date	Description
20	4/27/2016	Bulletin17R4
19	3/17/2016	Bulletin17R2
17	1/14/2016	Bulletin17R1

Issue Date - 05-02-14

Southeast Tower & Additions

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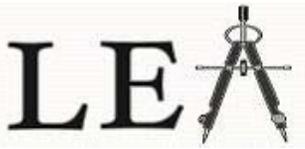
Drawing Title
Plumbing Detail
Schematic Fuel System

Bulletin 17R2

IKM Project Number
 12-077

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DRAWING REISSUED IN ITS ENTIRETY AS PART OF BULLETIN 17R4.



ATTACHMENT G

Process Description

This project is an expansion to an existing general medical surgical hospital. This project includes a Central Equipment Plant (CEP) that houses three steam boilers and two emergency power generators.

The three steam boilers generate 100 psi steam that is used for building humidification and is sent to heat exchangers to generate building heating hot water and domestic hot water. The boilers are fired by natural gas and have the ability to run on #2 fuel oil in case of emergency.

The emergency standby generators provide emergency power during loss of normal electric utility service for priority 1 (life safety and critical branches) and priority 2 (equipment branch) loads. The emergency standby generators are run on #2 fuel oil.



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ATTACHMENT H

Material Safety Data Sheets (MSDS)

This project contains boilers and emergency standby generators. The boilers produce steam and the generators produce electricity. There are no MSDS sheets for either of these products.

See attached MSDS for No. 2 Fuel Oil.



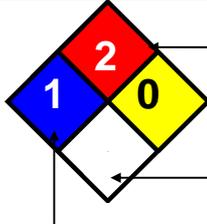
PUT OUR ENERGY TO WORK FOR YOU.

Two International Drive, Suite 200, Portsmouth, NH 03801
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An Axel Johnson, Inc. Company

MATERIAL SAFETY DATA SHEET

#2 FUEL OIL

Revised 9/01;07/02, 06/05, 10/08, 1/11
Page 1 of 4.

SECTION 1 - MATERIAL IDENTIFICATION		24 HOUR EMERGENCY INFO.	
PRODUCT / CHEMICAL NAME	#2 FUEL OIL	Sprague: 603-431-1000 Chemtrec: 800-424-9300	
PRODUCT / CHEMICAL SYNONYMS	HOME HEATING OIL, DIESEL OIL, OFF-HIGHWAY FUEL OIL ROAD FORCE DIESEL	HMIS / NFPA HAZARD RATING	
CHEMICAL FAMILY / FORMULA	BRANCHED CHAIN PETROLEUM HYDROCARBONS/VARIABLE	4=EXTREME 3=SERIOUS 2=MODERATE 1=SLIGHT 0=MINIMAL	
MATERIAL USE OR OCCURRENCE	DISTILLATION PRODUCT		

SECTION 2 - INGREDIENTS						
COMPONENT	%	C.A.S. NO.	OSHA PEL	OSHA STEL	ACGIH TLV	OTHER
NO. 2 FUEL OIL Consisting of a complex mixture of parafinic, olefinic, and naphthenic hydrocarbons, plus fused polycyclic hydrocarbons (C10 and higher) as benzene solubles.	>99	68476-30-2	5 mg/M ³ (mineral oil mist)		5 mg/M ³	
THIS PRODUCT CONTAINS 4% SULFUR CONTENT OR LESS. Polycyclic Hydrocarbons	<1	130498-29-2	0.2 mg/M ³ (benzene solubles as coal tar pitch volatiles).		0.2 mg/M ³	

SECTION 3 - PHYSICAL DATA			
BOILING POINT:	340°-675°F (171°-357°C)	% VOLATILITY BY VOLUME:	Greater than 50%
VAPOR PRESSURE (mm Hg):	1 mm Hg @ 68 F (20 C)	VAPOR DENSITY (AIR = 1):	Greater than 5.
SPECIFIC GRAVITY (H2O = 1):	.876	SOLUBILITY IN WATER:	Insoluble.
EVAPORATION RATE (n-butyl acetate = 1): None Determined.			
APPEARANCE & ODOR: Green, slightly viscous liquid, petroleum odor.			

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA	
FLASH POINT: 126-204 F (52-96 C) (Tag. Closed Cup)	AUTOIGNITION TEMP: 494 F (257 C)
FLAMMABILITY LIMITS IN AIR (% BY VOL.)	LEL: 0.6 UEL: 7.5
EXTINGUISHING MEDIUM: Foam, carbon dioxide, dry chemical, halon, and water fog.	
SPECIAL FIRE FIGHTING PROCEDURES: Use supplied-air breathing equipment for enclosed areas. Cool exposed containers with water spray. Continue water spray until entire container contents are cool. Withdraw immediately in the event of rising sound from venting safety devices or any discoloration of storage tank due to fire (subject to the fire chief's directions).	
UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not mix or store with strong oxidants. Do not store or pour near sources of ignition. Do not pressurize, cut, heat, weld, or expose to sources of ignition. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back.	

SECTION 5 - HEALTH DATA

TOXICOLOGICAL TEST DATA:	Oral Rat; LD50	RESULTS: 14,500 mg/kg (NIOSH RTECS July 1993)
ACUTE HEALTH EFFECTS		CHRONIC HEALTH EFFECTS
INHALATION	Mist or vapor may cause respiratory tract irritation. CNS depressant. High levels may cause giddiness, headache, dizziness, nausea, vomiting, and lack of coordination, narcosis, stupor, coma, and unconsciousness.	Prolonged exposure may cause dizziness, weakness, weight loss, anemia, nervousness, and pains in the limbs, peripheral numbness, and paresthesia. Renal failure possible. Degenerative changes of liver and kidneys may occur after prolonged exposure to high concentrations.
INGESTION	Irritation, giddiness, vertigo, headache, anesthetic stupor, CNS depression, coma and death.	No data available
SKIN CONTACT	Drying, cracking and defatting dermatitis. Direct contact may cause extreme irritation with severe erythema and edema with blistering and open sores. Absorption of large amounts may result in narcosis.	Repeated or prolonged exposure may cause irritation, dermatitis, and a rash of pimples and spots.
EYE CONTACT	Irritation is possible. However, animal studies indicate that irritation is unlikely.	No data available.

FIRST AID



PROCEDURES

INHALATION: Remove from vapor to fresh air. If breathing has stopped give artificial respiration. Maintain airway and blood pressure and administer oxygen if available. Keep affected person warm and at rest. Qualified personnel should perform administration of oxygen. Get medical attention immediately.

INGESTION: **DO NOT INDUCE VOMITING or give anything by mouth to an unconscious person.** When vomiting occurs, keep persons head lower than head to prevent pulmonary aspiration. Get medical attention immediately.

SKIN CONTACT: **Remove** fuel soaked clothing. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). If irritation develops, seek medical aid.

EYE CONTACT: **Flush** eyes immediately with large amounts of water, occasionally lifting upper and lower lids until no evidence of chemical remains (approximately 15-20 minutes). If irritation develops, seek medical aid.

TOXICOLOGICAL DATA

Kerosene generally contains benzene which has been designated a carcinogen by the National Toxicology Program (NTP), the International agency for Research on Cancer and the Occupational Safety and Health Administration. Benzene may produce blood changes that include reduced platelets, red blood cells, and white blood cells; also aplastic anemia, and acute nonlymphatic leukemia. Benzene has produced fetal death in laboratory animals and caused chromosome changes in humans and mutation changes in cells of other organisms. Health effects attributable to benzene aren't known to occur in humans exposed to kerosene. Kerosene has caused kidney injury in male rats only. No comparable health hazard for kidney disease is known to occur in humans. An epidemiology study or workers exposed to two isomers of trimethylbenzene had symptoms of nervousness, tension and anxiety, and asthmatic bronchitis. In addition, after inhalation of 60 ppm measured as hydrocarbon vapor, the works' peripheral blood showed a tendency to hypochromic anemia and a deviation from normal in the coagulability of the blood. Exposure of pregnant rats during gestation to toluene at levels of 250 ppm and higher produces some maternal toxicity and fetotoxicity. A lifetime inhalation study in rats did not show any toxic effects even at the high dose of 300 ppm. Behavioral signs of hearing loss were observed in rats exposed to toluene subchronically at levels of 1000 ppm or more. Comparable effects have not been reported in humans.



SECTION 6 - REACTIVITY DATA

STABILITY:	Stable under normal temperatures and pressures.
HAZARDOUS POLYMERIZATION:	Hazardous polymerization has not been known to occur under normal temperatures and pressures.
CONDITIONS TO AVOID:	May be ignited by heat, sparks, or flame. Vapors may travel to a source of ignition and flash back. Vapor explosion hazard indoors, outdoors, or in sewers.
INCOMPATIBLES:	May explode or react violently when exposed to oxidizing materials.
TYPICAL DECOMPOSITION PRODUCTS:	Thermal decomposition may release various hydrocarbons and hydrocarbon derivatives including carbon dioxide, water, organic acids, and aldehydes.

SECTION 7 - SPECIAL PROTECTION

RESPIRATORY PROTECTION:	Use with adequate ventilation. For large spills or when completing work in confined spaces, use a mask with an organic vapor cartridge or positive pressure air supplied (SCBA) unit.
VENTILATION	LOCAL EXHAUST: MECHANICAL (General):
EYE PROTECTION:	Splash goggles or shields with safety glasses
PROTECTIVE GLOVES:	Neoprene, PVC
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:	Employee must wear appropriate impervious clothing and equipment to prevent repeated or prolonged skin contact with this substance.

SECTION 8 - SPECIAL PRECAUTIONS

PRECAUTIONS FOR SAFE HANDLING AND STORAGE:	Avoid excessive inhalation or skin contact. Isolate from sources of ignition.
SPILL AND LEAK PROCEDURES:	Shut off ignition sources (no smoking, shut off flames or flares in hazard area). Isolate hazard area and restrict entry. If properly trained, proceed with the following measures: 1. For small spills, take up with sand or other absorbent material and place into containers for later disposal; and, 2. For large spills, dike far ahead of spill to prevent entrance into watercourses and/or ground water. Observe local, state, and federal governmental regulations.
WASTE DISPOSAL METHOD	1. Under EPA RCRA (40 CFR 261.21) If this product becomes a waste material intended for disposal and has a flash point below 140 F, it would be ignitable hazardous waste (waste code number D001). Refer to latest EPA or state regulations regarding proper disposal. 2. Under EPA RCRA (40 CFR 261.21) If this product becomes a waste material intended for disposal and has a TCLP benzene concentration greater than 0.5 PPM, it would be considered a toxic waste (waste code number D018). Refer to latest EPA or state regulations regarding proper disposal.

**MATERIAL SAFETY DATA SHEET****#2 FUEL OIL**

Revised 9/01;07/02, 06/05, 10/08, 1/11 4 of 4

SECTION 9 - DOT HAZARDOUS MATERIAL INFORMATION

PROPER SHIPPING NAME: FUEL OIL (#2)		REQUIRED PLACARDING: FLAMMABLE OR COMBUSTIBLE / 1993	
HAZARD CLASS: CLASS 3 (Flammable liquid)	PACKING GROUP (P.G.): III	N.A./U.N. NUMBER: NA 1993	
HAZARDOUS SUBSTANCE / RQ: NOT AVAILABLE		SHIPPING DESCRIPTION: FUEL OIL (#2), 3, NA 1993, PG III	

NOTE: This product may be re-classed as a combustible liquid when shipped domestically, by land only. If re-classed as a combustible liquid, this product is unregulated by DOT when shipped in non-bulk quantities.

SECTION 10 - EPA SARA TITLE III INFORMATION

SECTION 311/312	ACUTE: YES	CHRONIC: YES	
HAZARD CLASSIFICATION:	FIRE: YES	PRESSURE: NO	REACTIVE: NO

SECTION 11 - REMARKS

None

SECTION 12 - ADDITIONAL REGULATORY DATA

REPORTABLE COMPONENTS: FEDERAL EPA	%	SARA RQ	CERCLA RQ	RCRA NO.
#2 FUEL OIL	100	-----	-----	
* Under EPA RCRA (40 CFR 261.21) If this product becomes a waste material intended for disposal and has a flash point below 140 F, it would be considered ignitable hazardous waste (waste code number D001) with a SARA / CERCLA RQ of 100 pounds.				D001*
** Under EPA RCRA (40 CFR 261.21), if this product becomes a waste material intended for disposal and has a TCLP benzene concentration greater than 0.5 PPM, it would be considered a toxic waste (waste code number D018) with a SARA / CERCLA RQ of 10 pounds.				D018**

The information contained herein is based on data available at this time and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information shall make his own determination of the suitability of the material for his particular purposes.

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data

Emission Point ID No. <i>(Must match Emission Units Table & Plot Plan)</i>	Emission Point Type ¹	Emission Unit Vented Through This Point <i>(Must match Emission Units Table & Plot Plan)</i>		Air Pollution Control Device <i>(Must match Emission Units Table & Plot Plan)</i>		Vent Time for Emission Unit <i>(chemical processes only)</i>		All Regulated Pollutants - Chemical Name/CAS ³ <i>(Speciate VOCs & HAPS)</i>	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase <i>(At exit conditions, Solid, Liquid or Gas/Vapor)</i>	Est. Method Used ⁶	Emission Concentration ⁷ <i>(ppmv or mg/m⁴)</i>
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
1E	Upward Vertical Stack	1E	Boiler	N/A	N/A	N/A	N/A	PM-10, VOC, CO - 630-08-0, SO ₂ - 7446-09-5, SO ₃ - 7446-11-9, NO _x - 10102-43-9, NO _x - 10102-44-0, CO ₂ - 124-38-9	N/A	N/A	.40, .08, .536, .025, .528, 1664	.09, .07, .44, .02, .44, 1378	Gas/Vapor	O - Cut sheet	N/A
2E	Upward Vertical Stack	2E	Boiler	N/A	N/A	N/A	N/A	PM-10, VOC, CO - 630-08-0, SO ₂ - 7446-09-5, SO ₃ - 7446-11-9, NO _x - 10102-43-9, NO _x - 10102-44-0, CO ₂ - 124-38-9	N/A	N/A	.40, .08, .536, .025, .528, 1664	.09, .07, .44, .02, .44, 1378	Gas/Vapor	O - Cut sheet	N/A
3E	Upward Vertical Stack	3E	Boiler	N/A	N/A	N/A	N/A	PM-10, VOC, CO - 630-08-0, SO ₂ - 7446-09-5, SO ₃ - 7446-11-9, NO _x - 10102-43-9, NO _x - 10102-44-0, CO ₂ - 124-38-9	N/A	N/A	.40, .08, .536, .025, .528, 1664	.09, .07, .44, .02, .44, 1378	Gas/Vapor	O - Cut sheet	N/A
4E	Relief Vent	4E	Fuel Tank Fill	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5E	Horizontal Stack	5E	Generator	N/A	N/A	N/A	N/A	NO _x - 10102-43-9, NO _x - 10102-44-0, PM, CO - 630-08-0, HC	N/A	N/A	23, .17, 3, .6	.6, .01, .06, .16	Gas/Vapor	O - Cut sheet	N/A
6E	Horizontal Stack	6E	Generator	N/A	N/A	N/A	N/A	NO _x - 10102-43-9, NO _x - 10102-44-0, PM, CO - 630-08-0, HC	N/A	N/A	23, .17, 3, .6	.6, .01, .06, .16	Gas/Vapor	O - Cut sheet	N/A

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 2: Release Parameter Data								
Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) <i>at operating conditions</i>	Velocity (fps)	Ground Level <i>(Height above mean sea level)</i>	Stack Height ² <i>(Release height of emissions above ground level)</i>	Northing	Easting
1E	2	400	4923	26.1	1176	40	4389894	589560
2E	2	400	4923	26.1	1176	40	4389894	589560
3E	2	400	4923	26.1	1176	40	4389894	589560
4E	.33	52.25	38.89	7.33	1148.5	12	4389882	589583
5E	1.17	759	10909	170	1151.5	15	4389894	589560
6E	1.17	759	10909	170	1151.5	15	4389894	589560

¹ Give at operating conditions. Include inerts.

² Release height of emissions above ground level.

Attachment K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

The FUGITIVE EMISSIONS SUMMARY SHEET provides a summation of fugitive emissions. Fugitive emissions are those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Note that uncaptured process emissions are not typically considered to be fugitive, and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET.

Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions).

APPLICATION FORMS CHECKLIST - FUGITIVE EMISSIONS
1.) Will there be haul road activities? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
5.) Will there be Equipment Leaks (e.g. leaks from pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, cooling towers, etc.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the LEAK SOURCE DATA SHEET section of the CHEMICAL PROCESSES EMISSIONS UNIT DATA SHEET.
6.) Will there be General Clean-up VOC Operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET or the most appropriate form.
If you answered "NO" to all of the items above, it is not necessary to complete the following table, "Fugitive Emissions Summary."

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants - Chemical Name/CAS ¹	Maximum Potential Uncontrolled Emissions ²		Maximum Potential Controlled Emissions ³		Est. Method Used ⁴
		lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads	N/A	N/A	N/A	N/A	N/A	N/A
Unpaved Haul Roads	N/A	N/A	N/A	N/A	N/A	N/A
Storage Pile Emissions	N/A	N/A	N/A	N/A	N/A	N/A
Loading/Unloading Operations	N/A – Fuel Fill Box has vapor recovery	N/A	N/A	N/A	N/A	N/A
Wastewater Treatment Evaporation & Operations	N/A	N/A	N/A	N/A	N/A	N/A
Equipment Leaks	N/A	Does not apply	N/A	Does not apply	N/A	N/A
General Clean-up VOC Emissions	N/A	N/A	N/A	N/A	N/A	N/A
Other						

¹ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.

² Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

³ Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁴ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

Attachment L
EMISSIONS UNIT DATA SHEET
BULK LIQUID TRANSFER OPERATIONS

Furnish the following information for each new or modified bulk liquid transfer area or loading rack, as shown on the *Equipment List Form* and other parts of this application. This form is to be used for bulk liquid transfer operations such as to and from drums, marine vessels, rail tank cars, and tank trucks.

Identification Number (as assigned on <i>Equipment List Form</i>): 4S				
1. Loading Area Name: Fuel Tank				
2. Type of cargo vessels accommodated at this rack or transfer point (check as many as apply):				
Drums	Marine Vessels	Rail Tank Cars	<input checked="" type="checkbox"/> Tank Trucks	
3. Loading Rack or Transfer Point Data:				
Number of pumps	1			
Number of liquids loaded	1			
Maximum number of marine vessels, tank trucks, tank cars, and/or drums loading at one time	1			
4. Does ballasting of marine vessels occur at this loading area?				
Yes	No	<input checked="" type="checkbox"/> Does not apply		
5. Describe cleaning location, compounds and procedure for cargo vessels using this transfer point: N/A				
6. Are cargo vessels pressure tested for leaks at this or any other location?				
Yes		No		
If YES, describe:				
N/A				
7. Projected Maximum Operating Schedule (for rack or transfer point as a whole):				
Maximum	Jan. - Mar.	Apr. - June	July - Sept.	Oct. - Dec.
hours/day				

O = other (describe)

⁵ EPA = EPA Emission Factor as stated in AP-42
MB = Material Balance
TM = Test Measurement based upon test data submittal
O = other (describe)

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

N/A

RECORDKEEPING

N/A

REPORTING

N/A

TESTING

N/A

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

N/A

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*):

<p>1. Name or type and model of proposed affected source:</p> <p>Boilers SB-SE-1, SB-SE-2, SB-SE-3 Hurst Boiler & Welding Co., Inc. Series 500 Packaged Fire Tube Steam Boiler</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>N/A</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>N/A</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>N/A</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):			
(a) Type and amount in appropriate units of fuel(s) to be burned:			
Natural Gas 14, 600 CFH or No. 2 Oil 105 GPH			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
Natural Gas 2,718	@	60	°F and 14.7 psia.
No. 2 Oil 2,688			
(d) Percent excess air: 15			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
Natural Gas or No. 2 Oil 14,600,000 BTU/Hr per boiler (2 operating/ 1 standby)			
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:			
N/A			
(g) Proposed maximum design heat input:		14.6	× 10 ⁶ BTU/hr.
7. Projected operating schedule:			
Hours/Day	24	Days/Week	7
		Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@	60	°F and	14.7	psia
a.	NO _x	Natural Gas: 0.528	lb/hr	grains/ACF
b.	SO ₂	Natural Gas: 0.025	lb/hr	grains/ACF
c.	CO	Natural Gas: 0.536	lb/hr	grains/ACF
d.	PM ₁₀	Natural Gas: 0.110	lb/hr	grains/ACF
e.	Hydrocarbons		lb/hr	grains/ACF
f.	VOCs	Natural Gas: 0.080	lb/hr	grains/ACF
g.	Pb		lb/hr	grains/ACF
h.	Specify other(s)			
	CO ₂	Natural Gas: 114.75	lb/hr	grains/ACF
	H ₂ O	Natural Gas: 91.35	lb/hr	grains/ACF
			lb/hr	grains/ACF
			lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
 Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

- Weekly checks include:
 - *Firing Rate Control - verify factory settings
 - * Igniter - make visual inspection, check flame signal strength
 - *Scanner and Diffuser - check, inspect, and clean for soot building

RECORDKEEPING

- All records are kept indefinitely for all system monitoring and testing.

REPORTING

- Reports are required by the owner
- After all monitoring, testing and service, these reports are kept indefinitely.

TESTING

- Strainer (oil units) - replace or clean the oil strainer element.
- Combustion Test - perform a complete combustion test. Adjust burner as necessary.
- Pilot Turndown Test - required after any adjustment to flame, scanner, and pilot adjustment.

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

See attached maintenance flow chart.

Attachment L EMISSIONS UNIT DATA SHEET STORAGE TANKS

Provide the following information for each new or modified bulk liquid storage tank as shown on the *Equipment List Form* and other parts of this application. A tank is considered modified if the material to be stored in the tank is different from the existing stored liquid.

IF USING US EPA'S TANKS EMISSION ESTIMATION PROGRAM (AVAILABLE AT www.epa.gov/tnn/tanks.html), APPLICANT MAY ATTACH THE SUMMARY SHEETS IN LIEU OF COMPLETING SECTIONS III, IV, & V OF THIS FORM. HOWEVER, SECTIONS I, II, AND VI OF THIS FORM MUST BE COMPLETED. US EPA'S AP-42, SECTION 7.1, "ORGANIC LIQUID STORAGE TANKS," MAY ALSO BE USED TO ESTIMATE VOC AND HAP EMISSIONS (<http://www.epa.gov/tnn/chief/>).

I. GENERAL INFORMATION (required)

1. Bulk Storage Area Name N/A	2. Tank Name Fuel Oil
3. Tank Equipment Identification No. (as assigned on <i>Equipment List Form</i>) B443834 4S	4. Emission Point Identification No. (as assigned on <i>Equipment List Form</i>) 2E
5. Date of Commencement of Construction (for existing tanks)	
6. Type of change <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> New Stored Material <input type="checkbox"/> Other Tank Modification	
7. Description of Tank Modification (if applicable) N/A	
7A. Does the tank have more than one mode of operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (e.g. Is there more than one product stored in the tank?)	
7B. If YES, explain and identify which mode is covered by this application (Note: A separate form must be completed for each mode). None	
7C. Provide any limitations on source operation affecting emissions, any work practice standards (e.g. production variation, etc.): None	

II. TANK INFORMATION (required)

8. Design Capacity (specify barrels or gallons). Use the internal cross-sectional area multiplied by internal height. <p style="text-align: center;">15,000 gallons</p>	
9A. Tank Internal Diameter (ft) <p style="text-align: center;">10'</p>	9B. Tank Internal Height (or Length) (ft) <p style="text-align: center;">25'9"</p>
10A. Maximum Liquid Height (ft) <p style="text-align: center;">10'</p>	10B. Average Liquid Height (ft) <p style="text-align: center;">6'</p>
11A. Maximum Vapor Space Height (ft) <p style="text-align: center;">10'</p>	11B. Average Vapor Space Height (ft) <p style="text-align: center;">4'</p>
12. Nominal Capacity (specify barrels or gallons). This is also known as "working volume" and considers design liquid levels and overflow valve heights. <p style="text-align: center;">15,000 gallons</p>	

13A. Maximum annual throughput (gal/yr) N/A	13B. Maximum daily throughput (gal/day) 5000 gal/day if generators run
14. Number of Turnovers per year (annual net throughput/maximum tank liquid volume) N/A	
15. Maximum tank fill rate (gal/min) RFB	
16. Tank fill method <input checked="" type="checkbox"/> Submerged <input type="checkbox"/> Splash <input type="checkbox"/> Bottom Loading	
17. Complete 17A and 17B for Variable Vapor Space Tank Systems <input checked="" type="checkbox"/> Does Not Apply	
17A. Volume Expansion Capacity of System (gal)	17B. Number of transfers into system per year
18. Type of tank (check all that apply): <input checked="" type="checkbox"/> Fixed Roof <input type="checkbox"/> vertical <input type="checkbox"/> x horizontal <input type="checkbox"/> flat roof <input type="checkbox"/> cone roof <input type="checkbox"/> dome roof <input type="checkbox"/> other (describe) <input type="checkbox"/> External Floating Roof <input type="checkbox"/> pontoon roof <input type="checkbox"/> double deck roof <input type="checkbox"/> Domed External (or Covered) Floating Roof <input type="checkbox"/> Internal Floating Roof <input type="checkbox"/> vertical column support <input type="checkbox"/> self-supporting <input type="checkbox"/> Variable Vapor Space <input type="checkbox"/> lifter roof <input type="checkbox"/> diaphragm <input type="checkbox"/> Pressurized <input type="checkbox"/> spherical <input type="checkbox"/> cylindrical <input type="checkbox"/> Underground <input type="checkbox"/> Other (describe)	

III. TANK CONSTRUCTION & OPERATION INFORMATION (optional if providing TANKS Summary Sheets)

19. Tank Shell Construction: <input type="checkbox"/> Riveted <input type="checkbox"/> Gunitite lined <input type="checkbox"/> Epoxy-coated rivets <input checked="" type="checkbox"/> Other (describe) Welded		
20A. Shell Color White	20B. Roof Color White	20C. Year Last Painted 2016
21. Shell Condition (if metal and unlined): <input checked="" type="checkbox"/> No Rust <input type="checkbox"/> Light Rust <input type="checkbox"/> Dense Rust <input type="checkbox"/> Not applicable		
22A. Is the tank heated? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
22B. If YES, provide the operating temperature (°F)		
22C. If YES, please describe how heat is provided to tank.		
23. Operating Pressure Range (psig): 0 to 1		
24. Complete the following section for Vertical Fixed Roof Tanks <input checked="" type="checkbox"/> Does Not Apply		
24A. For dome roof, provide roof radius (ft)		
24B. For cone roof, provide slope (ft/ft)		
25. Complete the following section for Floating Roof Tanks <input checked="" type="checkbox"/> Does Not Apply		
25A. Year Internal Floaters Installed:		
25B. Primary Seal Type: <input type="checkbox"/> Metallic (Mechanical) Shoe Seal <input type="checkbox"/> Liquid Mounted Resilient Seal <input type="checkbox"/> Vapor Mounted Resilient Seal <input type="checkbox"/> Other (describe):		
25C. Is the Floating Roof equipped with a Secondary Seal? <input type="checkbox"/> YES <input type="checkbox"/> NO		
25D. If YES, how is the secondary seal mounted? (check one) <input type="checkbox"/> Shoe <input type="checkbox"/> Rim <input type="checkbox"/> Other (describe):		
25E. Is the Floating Roof equipped with a weather shield? <input type="checkbox"/> YES <input type="checkbox"/> NO		

25F. Describe deck fittings; indicate the number of each type of fitting:		
ACCESS HATCH		
BOLT COVER, GASKETED:	UNBOLTED COVER, GASKETED:	UNBOLTED COVER, UNGASKETED:
AUTOMATIC GAUGE FLOAT WELL		
BOLT COVER, GASKETED:	UNBOLTED COVER, GASKETED:	UNBOLTED COVER, UNGASKETED:
COLUMN WELL		
BUILT-UP COLUMN – SLIDING COVER, GASKETED:	BUILT-UP COLUMN – SLIDING COVER, UNGASKETED:	PIPE COLUMN – FLEXIBLE FABRIC SLEEVE SEAL:
LADDER WELL		
PIP COLUMN – SLIDING COVER, GASKETED:	PIPE COLUMN – SLIDING COVER, UNGASKETED:	
GAUGE-HATCH/SAMPLE PORT		
SLIDING COVER, GASKETED:	SLIDING COVER, UNGASKETED:	
ROOF LEG OR HANGER WELL		
WEIGHTED MECHANICAL ACTUATION, GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	SAMPLE WELL-SLIT FABRIC SEAL (10% OPEN AREA)
VACUUM BREAKER		
WEIGHTED MECHANICAL ACTUATION, GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	
RIM VENT		
WEIGHTED MECHANICAL ACTUATION GASKETED:	WEIGHTED MECHANICAL ACTUATION, UNGASKETED:	
DECK DRAIN (3-INCH DIAMETER)		
OPEN:	90% CLOSED:	
STUB DRAIN		
1-INCH DIAMETER:		
OTHER (DESCRIBE, ATTACH ADDITIONAL PAGES IF NECESSARY)		

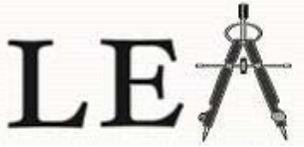
26. Complete the following section for Internal Floating Roof Tanks		<input checked="" type="checkbox"/> Does Not Apply
26A. Deck Type: <input type="checkbox"/> Bolted <input type="checkbox"/> Welded		
26B. For Bolted decks, provide deck construction:		
26C. Deck seam:		
<input type="checkbox"/> Continuous sheet construction 5 feet wide <input type="checkbox"/> Continuous sheet construction 6 feet wide <input type="checkbox"/> Continuous sheet construction 7 feet wide <input type="checkbox"/> Continuous sheet construction 5 x 7.5 feet wide <input type="checkbox"/> Continuous sheet construction 5 x 12 feet wide <input type="checkbox"/> Other (describe)		
26D. Deck seam length (ft)	26E. Area of deck (ft ²)	
For column supported tanks:	26G. Diameter of each column:	
26F. Number of columns:		

IV. SITE INFORMATION (optional if providing TANKS Summary Sheets)

27. Provide the city and state on which the data in this section are based. Morgantown, WV	
28. Daily Average Ambient Temperature (°F)	52.25
29. Annual Average Maximum Temperature (°F)	62.7
30. Annual Average Minimum Temperature (°F)	41.8
31. Average Wind Speed (miles/hr)	6
32. Annual Average Solar Insulation Factor (BTU/(ft ² ·day))	792.5
33. Atmospheric Pressure (psia)	14.89

V. LIQUID INFORMATION (optional if providing TANKS Summary Sheets)

34. Average daily temperature range of bulk liquid:			
34A. Minimum (°F)	41.8	34B. Maximum (°F)	62.7
35. Average operating pressure range of tank:			
35A. Minimum (psig)	0	35B. Maximum (psig)	1
36A. Minimum Liquid Surface Temperature (°F)	21	36B. Corresponding Vapor Pressure (psia)	.014
37A. Average Liquid Surface Temperature (°F)	52.3	37B. Corresponding Vapor Pressure (psia)	.009
38A. Maximum Liquid Surface Temperature (°F)	83	38B. Corresponding Vapor Pressure (psia)	.004
39. Provide the following for <u>each</u> liquid or gas to be stored in tank. Add additional pages if necessary.			
39A. Material Name or Composition	No. 2 Fuel Oil		
39B. CAS Number	68476-30-2		
39C. Liquid Density (lb/gal)	7.67		
39D. Liquid Molecular Weight (lb/lb-mole)	188		
39E. Vapor Molecular Weight (lb/lb-mole)	130		



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ATTACHMENT N

Supporting Emissions Calculations

INDUSTRIAL COMBUSTION

Customer: PC McKenzie
Attn: Paul Good

Job Name: Ruby Hosp SE Tower
Date: 10/2/2015
By: Jeff Mayer

Burner Model: LNDLG-145P
Max. Firing Rate: 14.5 mmBTU/hr
Gas Flow: 14,500 scfh
Fuel: Natural Gas

Application Details:

Burner Y58614 (Hurst 500 Series)

	ppm-vol.dry (at 3% O2)	Pounds per 1,000,000 BTU's	TOTAL Pounds / Hour @ 100% Firing Rate
PM-10 (Particulate)	--	0.0076	0.110
CO (Carbon Monoxide)	50	0.0370	0.536
SOx (<18 ppm Sulfur in Fuel)	1	0.0017	0.025
VOC (Non-Methane)	--	0.0055	0.080
NOx (Nitrogen Compounds)	30	0.0364	0.528
CO2 (Carbon Dioxide)	--	114.75	1,664
H2O (Water)	--	91.35	1,325

Combustion Air Requirement at 15% Excess Air	(60 'F)	2,718 scfm
Flue Gas Volume	(400 'F)	4,923 acfm
Flue Gas Velocity	(24.0" stack)	1,567 ft/min

STANDBY 1500 kW 1875 kVA
 60 Hz 1800 rpm 480 Volts
Technical Data



Open Generator Set - 1800 rpm/60 Hz/480 Volts		
EPA Certified for Stationary Emergency Applications (EPA Tier 2 emissions levels)		
Generator Set Package Performance		
Genset Power rating @ 0.8 pf	1875 kVA	
Genset Power Rating with fan	1500 kW	
Fuel Consumption		
100% Load with fan	396.0 L/hr	104.6 Gal/hr
75% Load with fan	310.5 L/hr	82.0 Gal/hr
50% Load with fan	219.8 L/hr	58.1 Gal/hr
Cooling System¹		
Air flow restriction (system)	0.12 kPa	0.48 in. water
Air flow (max @ rated speed for radiator arrangement)	2075 m ³ /min	73278 cfm
Engine coolant capacity with radiator	390.8 L	103.2 gal
Engine coolant capacity	156.8 L	41.4 gal
Radiator coolant capacity	234.0 L	61.8 gal
Inlet Air		
Combustion air inlet flow rate	129.4 m ³ /min	4569.7 cfm
Exhaust System		
Exhaust stack gas temperature (engine out)	403.9 °C	759.0 °F
Exhaust gas flow rate	308.9 m ³ /min	10908.7 cfm
Exhaust flange size (internal diameter)	203.2 mm	8.0 in
Exhaust system backpressure (maximum allowable)	6.7 kPa	26.9 in Water
Heat Rejection		
Heat rejection to coolant (total)	616 kW	35032 Btu/min
Heat rejection to exhaust (total)	1322 kW	75182 Btu/min
Heat rejection to aftercooler	481 kW	27354 Btu/min
Heat rejection to atmosphere from engine	124 kW	7052 Btu/min
Heat rejection to atmosphere from generator	74 kW	3141 Btu/min
Lube System		
Sump refill with filter	310.4 L	82 gal
Emissions (Nominal)³		
NOx g/hp-hr	4.08 g/hp-hr	
CO g/hp-hr	0.44 g/hp-hr	
HC g/hp-hr	0.11 g/hp-hr	
PM g/hp-hr	0.03 g/hp-hr	

¹ For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.

² Generator temperature rise is based on a 40 degree C ambient per NEMA MG1-32. UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics.

³ Emissions data measurement procedures are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO 8178-1 for measuring HC, CO, PM, NOx. Data shown is based on steady state operating conditions of 77°F, 28.42 in HG and number 2 diesel fuel with 35°API and LHV of 18,390 btu/lb. The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% load and thus cannot be used to compare to EPA regulations which use values based on a weighted cycle. Emissions values are tailpipe out with aftertreatment installed. Values shown as zero may be greater than zero but were below the detection level of the equipment used at the time of measurement.

Model 715 & 715S Remote Fill Box -Top Connection

SPECIFICATION SHEET

The Morrison 715 Series remote fill box is a simple 10 gallon capacity cabinet that provides containment of small spills during tank filling operations. Each unit is supplied with tank mount brackets for easy installation on storage tanks.

Features

- 10 gallon (37.85 liter) capacity
- 3" male NPT threaded top connection
- Vented and weatherproof
- Hinged door is lockable with a padlock
- Bottom sloped (right to left) toward drain and pump mounting location; drains on left side
- Vapor recovery mounting bracket integrated into the cabinet exterior
- Vapor recovery adaptor, cap, and u-bolt kits are available
- Available with hand pump assembly, ball valve, quick disconnect check valve coupler/adaptor, dry disconnect adaptor, and dust cap/plug in 2" or 3" configuration
- All connection assemblies are factory installed and tested prior to shipping.
- DEF, Aviation, and E-85 models are available
- Post mount kits and four-leg stands are available in powder coated steel
- Four-leg stands are also available in stainless steel

Construction Details

- Box and door are 14-gauge steel, powder coated white, or 304 stainless steel
- Ball valve is Morrison 691 series brass or 691BSS series stainless steel
- Quick disconnect coupler and plug are aluminum, anodized aluminum, or stainless steel
- Quick disconnect adaptor and cap are anodized aluminum
- Dry disconnect adaptor and cap are aluminum, anodized aluminum, or stainless steel

Vapor recovery kit

- Vapor recovery adaptor is aluminum with Viton®
- Vapor recovery cap is aluminum, powder coated orange
- Hand pump is steel construction, Teflon® seals with Viton® o-rings, or stainless steel with Teflon® and Viton®

Box dimensions

- Width = 24 $\frac{1}{4}$ " Height = 28 $\frac{3}{4}$ " Depth = 19"

Approvals

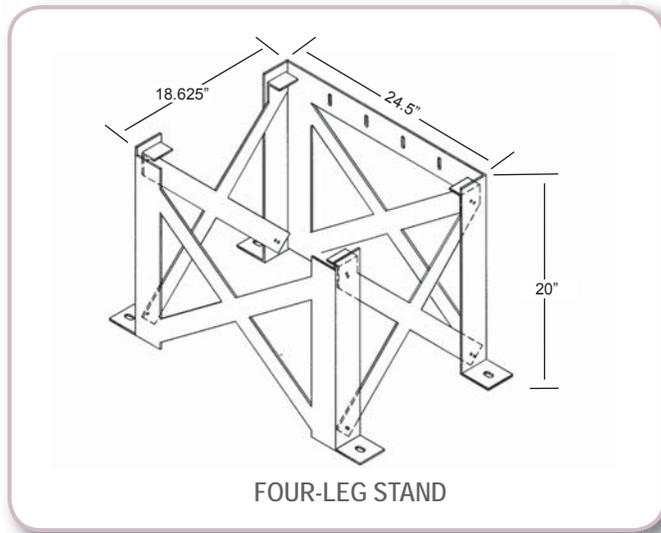
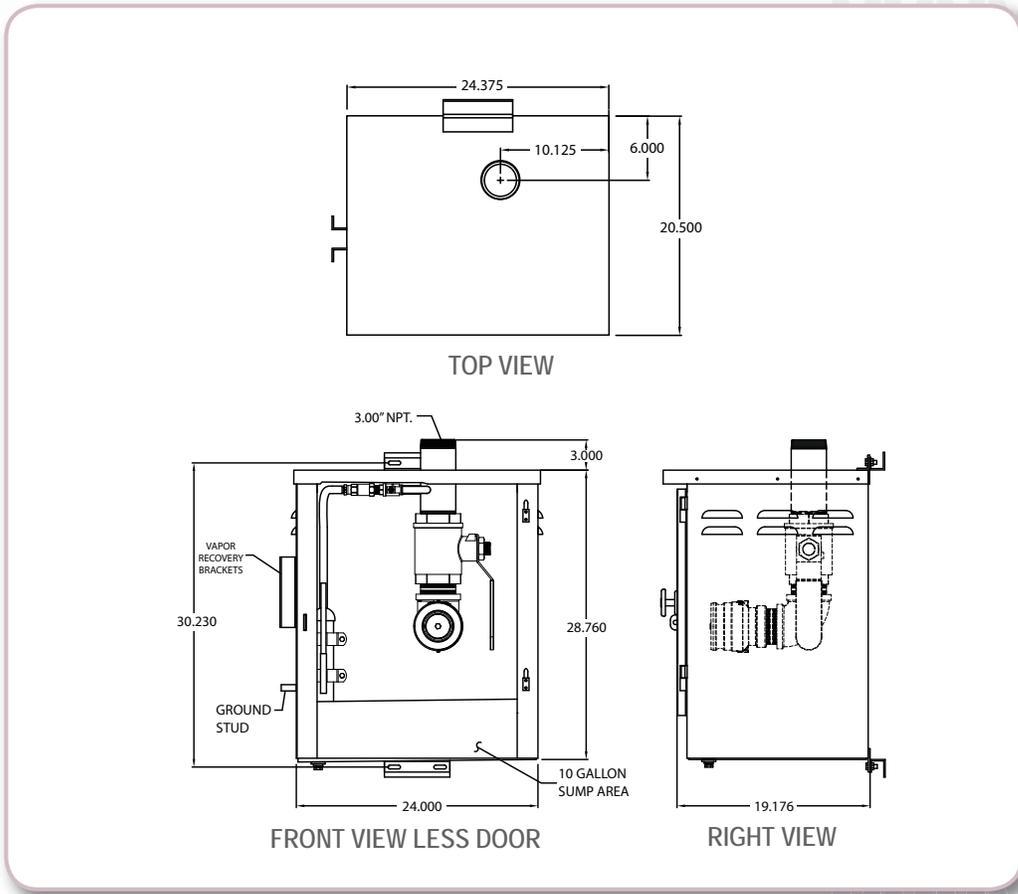
- cUL listed
- Florida DEP EQ-787



Model 715 & 715S Remote Fill Box -Top Connection (continued)

I.D. Number	Description	Weight
715--T00-0000-0	10 gal. Remote fill box, no outlet	101 lbs
715-TT3-0000-0	10 gal. Remote fill box, fill box only	135 lbs
715--TT3-000B-0	10 gal. Remote fill box, w/ hand pump assembly	
715--TT3-2QBB-0	10 gal. Remote fill box, male threads, with hand pump, with 2" 90 female quick disconnect check & ball valve	141 lbs
715-TT3-2MBB-0	10 gal. Remote fill box, male quick disconnect with ball valve & hand pump	141 lbs
715--TT3-3QBB-0	10 gal. Remote fill box, male threads, with hand pump, with 3" 90 female quick disconnect check & ball valve	144 lbs
715--TT3-3MBB-0	10 gal. Remote fill box, male quick disconnect with cap	144 lbs
715--TT3-2DBB-0	10 gal. Remote fill box, male threads, with hand pump, with 2" 90, dry-disconnect & ball valve	143 lbs
715--TT3-3DBB-0	10 gal. Remote fill box, male threads, with hand pump, with 3" 90, dry-disconnect & ball valve	158 lbs
715--TT3-2MB0-0	10 gal. Remote fill box, male quick disconnect with ball valve	
715--TT3-3MB0-0	10 gal. Remote fill box, male quick disconnect with ball valve	
715--TT3-2QB0-0	10 gal. Remote fill box, with quick disconnect & ball valve, no hand pump	
715-TT3-2RBB-0	10 gal. Remote fill box, with quick disconnect, ball valve & hand pump	141 lbs
715--TT3-2DS0-0	10 gal. Remote fill box, Aviation, with HC dry-disconnect & SS ball valve	
715--TT3-2RS0-0	10 gal. Remote fill box, Aviation, with HC quick disconnect & SS ball valve	
715--TT3-2DSE-0	10 gal. Remote fill box, E-85, with HC dry-disconnect, SS ball valve & hand pump	
715--TT3-2RSE-0	10 gal. Remote fill box, E-85, with HC quick disconnect, SS ball valve & hand pump	
715S-TT3-0000-0	10 gal. SS Remote fill box, fill box only	135 lbs
715S-TT3-2QBB-0	10 gal. SS Remote fill box, male threads, w/hand pump, with 2" 90 female quick disconnect check & ball valve	132 lbs
715S-TT3-2MBB-0	10 gal. SS Remote fill box, male quick disconnect	132 lbs
715S-TT3-3QBB-0	10 gal. SS Remote fill box, male threads, w/hand pump, with 3" 90 female quick disconnect check & ball valve	144 lbs
715S-TT3-3MBB-0	10 gal. SS Remote fill box, male quick disconnect	144 lbs
715S-TT3-2DBB-0	10 gal. SS Remote fill box, male threads, w/hand pump, with 2" 90, dry-disconnect & ball valve	135 lbs
715S-TT3-3DBB-0	10 gal. SS Remote fill box, male threads, w/hand pump, with 3" 90, dry-disconnect & ball valve	148 lbs
715S-TT3-2DS0-0	10 gal. SS remote fill box, Aviation, with HC dry-disconnect & SS ball valve	
715S-TT3-2RS0-0	10 gal. SS remote fill box, Aviation, with HC quick disconnect & SS ball valve	
715S-TT3-3DS0-0	10 gal. SS remote fill box, Aviation, with HC dry-disconnect & SS ball valve	
715S-TT3-3RS0-0	10 gal. SS remote fill box, Aviation, with HC quick disconnect & SS ball valve	
715S-TT3-2DSE-0	10 gal. SS remote fill box, E-85, with HC dry-disconnect, SS ball valve, & hand pump	
715S-TT3-2MBE-0	10 gal. SS remote fill box, E-85	
715S-TT3-2RSE-0	10 gal. SS remote fill box, E-85, with HC quick disconnect, SS ball valve & hand pump	
715S-TT3-3DSE-0	10 gal. SS remote fill box, E-85, with HC dry-disconnect, SS ball valve & hand pump	
715S-TT3-3RSE-0	10 gal. SS remote fill box, E-85, with HC quick disconnect, SS ball valve & hand pump	
715S-TT3-2ES0-0	10 gal. SS remote fill box, DEF, with SS dry-disconnect, & SS ball valve	
715S-TT3-2ESS-0	10 gal. SS remote fill box, DEF	
715S-TT3-2SS0-0	10 gal. SS remote fill box, DEF, with SS quick disconnect & SS ball valve	
715S-TT3-2SSS-0	10 gal. SS remote fill box, DEF, with SS quick disconnect, ball valve & hand pump	
715S-TT3-3SS0-0	10 gal. SS remote fill box, DEF, with SS quick disconnect & SS ball valve	
715S-TT3-3SSE-0	10 gal. SS remote fill box, DEF, with SS quick disconnect & ball valve	
715---VR30 AK	3" Vapor Recovery Kit	
715---VR40 AK	4" Vapor Recovery Kit	
715--P060 AK	Post mount kit - 3" x 60" post with clamps and base	
715---S400 AS	4 leg stand for 715 fill box, powder coated steel	
715S--S400 AS	4 leg stand for 715 fill box, stainless steel	

Model 715 & 715S Remote Fill Box -Top Connection (continued)

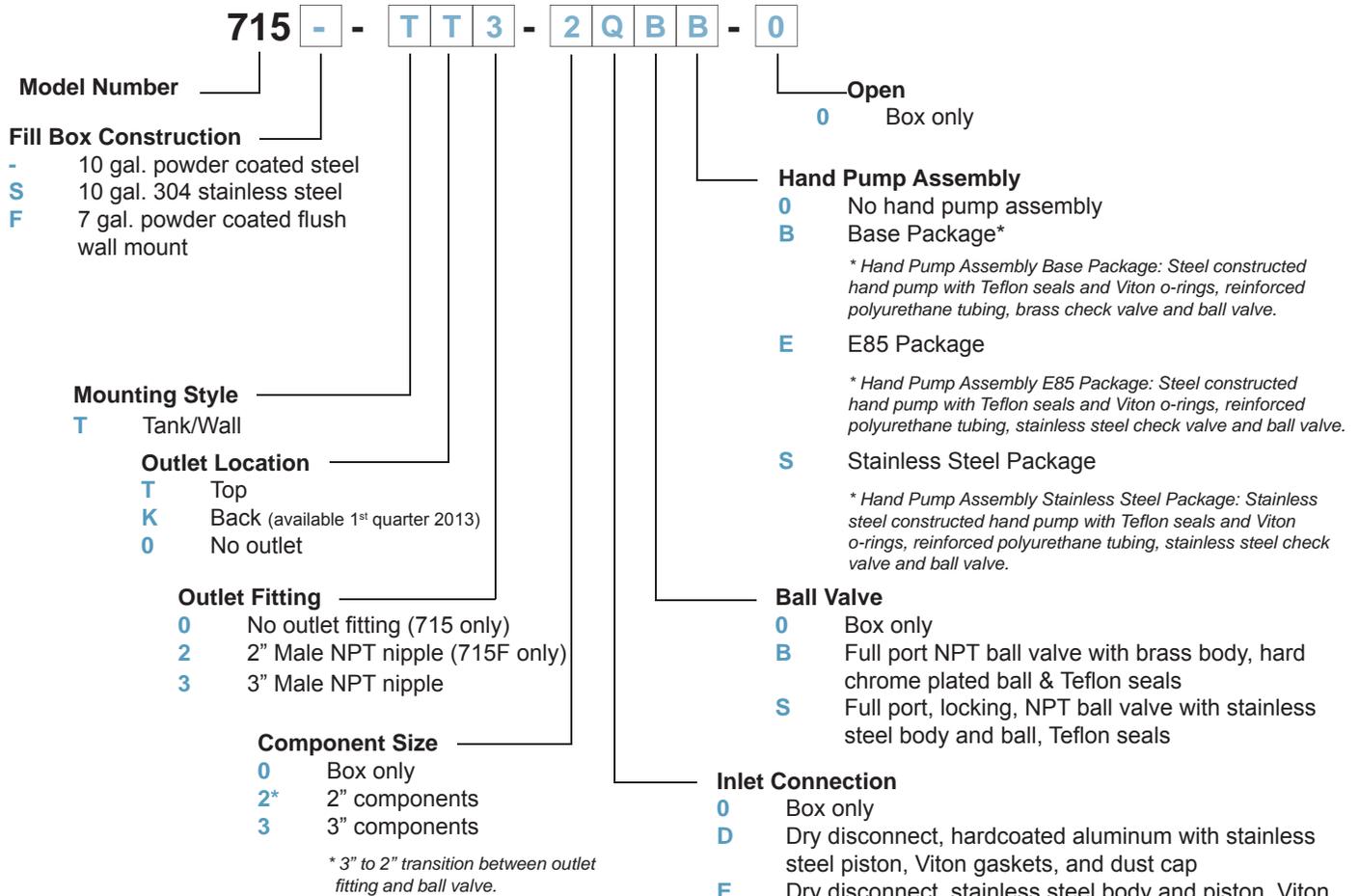


715 Part Numbering System

How to “Build-a-Box”

To order, simply select desired option from each category and insert the corresponding letter or number in the appropriate space below.

Example:



Additional Options:

- 60" Post mount kit: 715---P060 AK
- Stand: 715---S400 AS (4 leg stand, powder coated steel)
- Stand: 715S--S400 AS (4 leg stand, stainless steel)
- Vapor recovery kits: 715---VR30 AK (3") and 715---VR40 AK (4")



For a complete listing of 715 item numbers, please refer to the Morrison Price List.

GENERAL NOTES

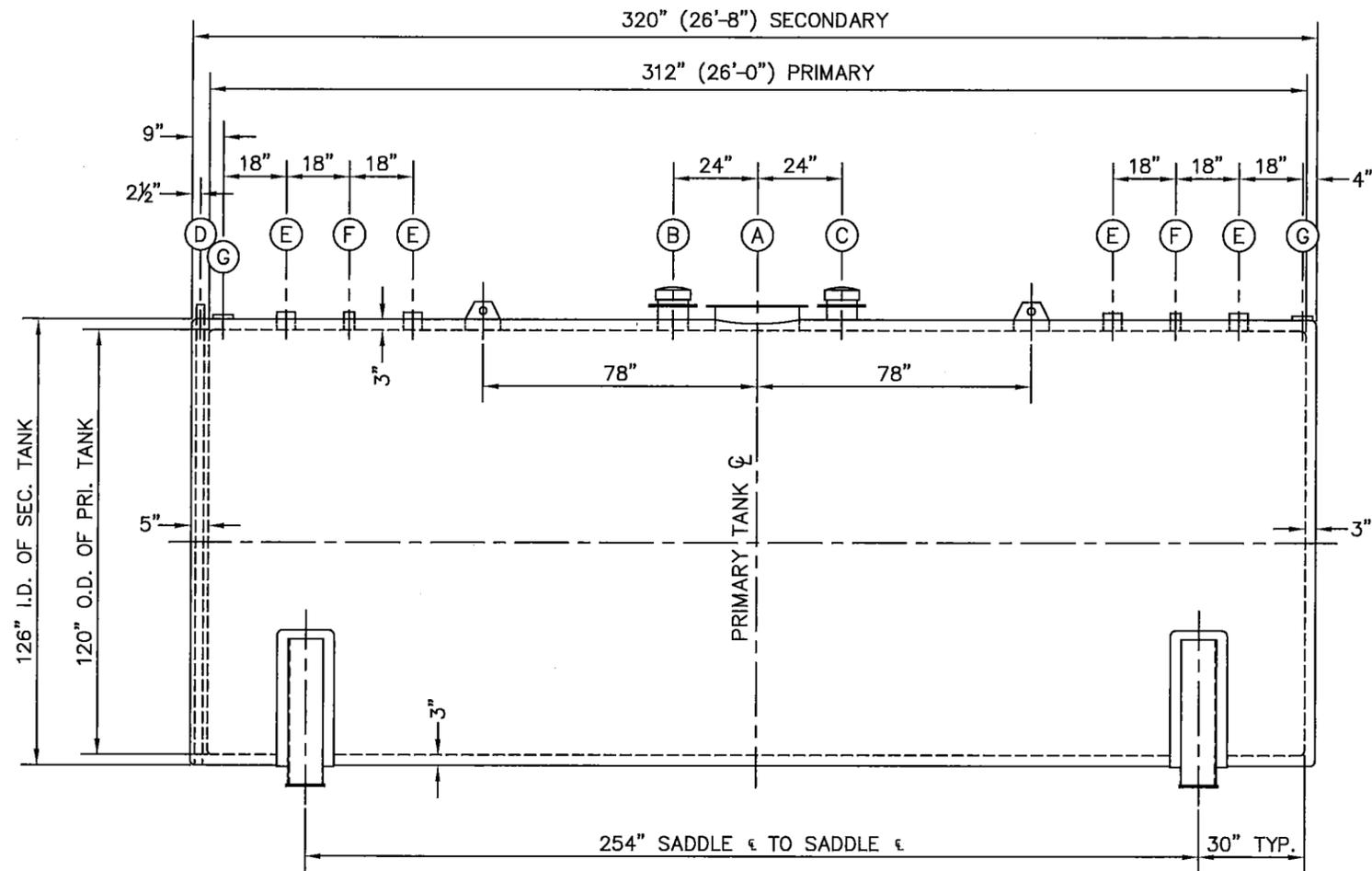
FABRICATION PER: UL-142 & UL-2085
 LABEL REQUIRED YES NO UL & FIREGUARD
 SHOP TEST: PER UL-142
 3-5 PSI AIR WITH SOAP SUDS
 INSPECTION BY: MODERN WELDING Q.C.
 MATERIAL SHELL: A36
 FLANGES: A105
 SUPPORTS: A36
 INT. APPURTENANCES: C.S.
 EXT. APPURTENANCES: C.S.
 BOLTS: 193-2H
 NUTS: 194-B7
 GASKETS: PER UL-142
 SURFACE PREP.:
 EXT.: SSPC-SP-6 INT.: NONE
 PAINT:
 EXT.: SW MACROPOXY 646
 PER MANUFACTURER'S RECOMMENDATION
 INT.: NONE
 EST. WT. EMPTY: 35,000 LBS.
 VENTING CAPACITY (CFH): PRI.: 438,200
 VENTING CAPACITY (CFH): SEC.: 459,000
 OPENINGS SHALL BE PROTECTED PER UL-142

NOTES

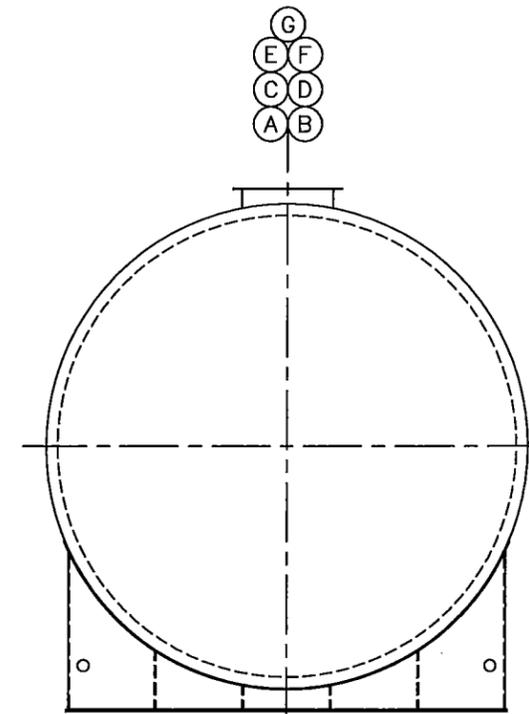
ALL FILLET WELDS TO BE 1/4" MIN. UNLESS OTHERWISE NOTED.

ALL NOZZLE AND MANWAY BOLT HOLES TO STRADDLE NORMAL CENTER LINES OR THEIR PARALLEL UNLESS OTHERWISE NOTED.

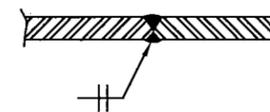
EMERGENCY VENTING LABELS FOR PRIMARY TANK & ANNULAR SPACE ARE REQUIRED. LABEL SHALL BE ATTACHED NEXT TO OR BETWEEN BOTH EMERGENCY VENTS.



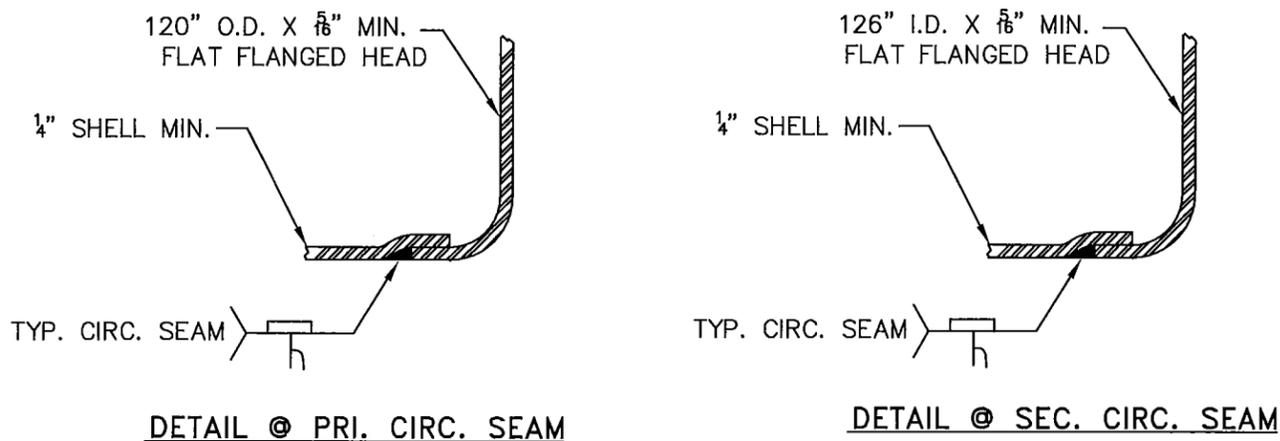
SIDE ELEVATION



END VIEW



TYP. PRI. LONG'T WELD SEAM



DETAIL @ PRI. CIRC. SEAM

DETAIL @ SEC. CIRC. SEAM

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* EMERGENCY VENTS SUPPLIED BY MODERN WELDING

MARK	REQ'D.	SIZE	NK. TKNS.	RATING	TYPE	SERVICE
G	2	4"	TANK FLG	-	CRV	CONCRETE FILL
F	2	2"	COUPLING	150#	FG	-
E	4	4"	COUPLING	150#	FG	-
D	1	2"	PIPE	SCH 40	T.O.E.	MONITOR
* C	1	8"	FLANGED ADAPTOR	-	MB	SEC. EMER. VENT
* B	1	8"	FLANGED ADAPTOR	-	MB	PRI. EMER. VENT
A	1	24"	PRESSED STEEL	-	STD	MANWAY

SCHEDULE OF OPENINGS

JS	JC	ORIGINAL ISSUE FOR APPROVAL	10/29/2015	△
BY	AP	REVISION	DATE	NO
NO. REQ'D ONE (1)		ITEM NO. -		
MODERN WELDING CO. of OHIO INC.				
P.O. Box 4430 One Modern Way		Newark, Ohio 43055 (740)344-9425		
STEEL CITY FUELING SYSTEMS, INC.				
15,000 GALLON HORIZONTAL FIREGAURD TANK				
DWN. BY	JS	DATE	10/29/2015	SCALE: NONE
CHK. BY	JC	JOB NO.	30073-1	DWG. NO. 30073-1 △
APR. BY	-	P.O. NO.	54-0052-MOD-001	SHT. NO. 1 OF 2



ATTACHMENT O

Monitoring, Recordkeeping, Reporting and Testing Plans

MONITORING:

This system is not continuously monitored. Maintenance personnel will perform weekly checks and yearly checks to adjust, repair or modify as necessary to maintain proper operation.

The weekly checks by facility personnel include firing rate control to verify factory settings, visual inspection of the igniter and flame signal strength and check and inspect the scanner and diffuser and clean any soot build up. The yearly checks by the manufacturer's representative verifying proper combustion and excess oxygen and adjusting as necessary and an inspection of the entire system.

RECORDKEEPING:

All records of weekly and yearly inspections and any repairs are turned over to the owner and stored for record purposes.

REPORTING:

All weekly and yearly inspection reports and repair reports are documented by the personnel performing the work and are kept by the owner for record purposes.

TESTING:

Additional testing consists of repairing or replacing the oil strainer as recommended by the manufacturer, a yearly complete combustion test with any adjustments or repairs necessary to achieve proper combustion and a pilot turndown test which is required after any adjustment to the flame, scanner or pilot adjustment.



ATTACHMENT P
Affidavit of Publication

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Ruby Memorial Hospital has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Construction Permit for Operation of Boilers and Emergency Generators located on 1 Medical Center Drive, Morgantown, in Monongalia County, West Virginia. The latitude and longitude coordinates are: 39.653415°, -79.957355°

The applicant estimates the Increased potential to discharge the following Regulated Air Pollutants will be: PM-10 = 0.20 tons/year, VOC = 0.14 tons/year, CO = 1.0, SO_x = 0.04, NO_x = 2.08, CO₂ = 2756, HC = 0.32.

Startup of operation is planned to begin on or about the 19 day of September, 2016. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the 19 day of September, 2016.

By: WVU Medicine
Scott Bierer
Director of Facilities Management
1 Medical Center Drive
Morgantown, WV 26506