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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): Parkersburg Utility Board		2. Federal Employer ID No. (FEIN): 55-0750772	
3. Name of facility (if different from above): 19th Street Wastewater Treatment Plant		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: Attention: Eric Bennett 125 19th Street Parkersburg, WV 26101		5B. Facility's present physical address: Attention: Eric Bennett 125 19th Street Parkersburg, WV 26101	
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: <i>City of Parkersburg</i>			
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: The site is owned, operated, and maintained by the Parkersburg Utility Board. – 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.): Sewage Treatment Plant (Emergency Generator, Boiler, Flare)		10. North American Industry Classification System (NAICS) code for the facility: 221320	
11A. DAQ Plant ID No. (for existing facilities only): 107-00163		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): G60-C051	

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

<p>12A.</p> <ul style="list-style-type: none"> For Modifications, Administrative Updates or Temporary permits at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road; For Construction or Relocation permits, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a MAP as Attachment B. <p>The site is located 800 ft west of the intersection of 19th Street and Garfield Avenue (State Road 14 and State Road 68) in the City of Parkersburg.</p>														
12.B. New site address (if applicable): Not Applicable	12C. Nearest city or town: Parkersburg	12D. County: Wood												
12.E. UTM Northing (KM): 4348.120	12F. UTM Easting (KM): 451.964	12G. UTM Zone: 17												
<p>13. Briefly describe the proposed change(s) at the facility: The Parkersburg Utility Board (PUB) proposes an upgrade to the capacity of the WWTP facility. New sources of emission include an emergency generator, biogas boiler, and waste gas burner (flare).</p>														
14A. Provide the date of anticipated installation or change: Construction began on 9/15/14 <ul style="list-style-type: none"> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: / / Not Applicable 	14B. Date of anticipated Start-Up if a permit is granted: Prior to 3/8/2016													
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). See Attachment C														
<p>15. Provide maximum projected Operating Schedule of activity/activities outlined in this application:</p> <table border="0"> <tr> <td><i>Emergency Generator:</i></td> <td>Hours Per Day 1</td> <td>Days Per Week 1</td> <td>Weeks Per Year 52</td> </tr> <tr> <td><i>Boilers:</i></td> <td>Hours Per Day 24</td> <td>Days Per Week 7</td> <td>Weeks Per Year 52</td> </tr> <tr> <td><i>Flare (Waste Gas Burner):</i></td> <td>Hours Per Day 24</td> <td>Days Per Week 7</td> <td>Weeks Per Year 52</td> </tr> </table>			<i>Emergency Generator:</i>	Hours Per Day 1	Days Per Week 1	Weeks Per Year 52	<i>Boilers:</i>	Hours Per Day 24	Days Per Week 7	Weeks Per Year 52	<i>Flare (Waste Gas Burner):</i>	Hours Per Day 24	Days Per Week 7	Weeks Per Year 52
<i>Emergency Generator:</i>	Hours Per Day 1	Days Per Week 1	Weeks Per Year 52											
<i>Boilers:</i>	Hours Per Day 24	Days Per Week 7	Weeks Per Year 52											
<i>Flare (Waste Gas Burner):</i>	Hours Per Day 24	Days Per Week 7	Weeks Per Year 52											
16. Is demolition or physical renovation at an existing facility involved? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO														
<p>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. This facility is not subject to 112(r) (methane used as fuel).</p>														
<p>18. Regulatory Discussion. List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (<i>if known</i>). 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 (<i>if known</i>). Provide this information as Attachment D. See Attachment D.</p>														
Section II. Additional attachments and supporting documents.														
19. Include a check payable to WVDEP – Division of Air Quality with 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) . <ul style="list-style-type: none"> 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 . <ul style="list-style-type: none"> Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable). <p>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</p>														
24. Provide Material Safety Data Sheets (MSDS) for all materials processed, used or produced as Attachment H . <ul style="list-style-type: none"> 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 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 Boilers, Generators
Fill out and provide the Emissions Unit Data Sheet(s) as Attachment L .
29. Check all applicable Air Pollution Control Device Sheets listed below: <input type="checkbox"/> Absorption Systems <input type="checkbox"/> Baghouse <input checked="" 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 <input type="checkbox"/> Other Collectors, specify
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)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> 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 . Not Applicable
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 _____ DATE: _____
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: Eric Bennett

35C. Title: General Manager

35D. E-mail: Eric.Bennett@pubwv.com

36E. Phone: 304-424-8535

36F. FAX: 304-485-3802

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 type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input checked="" 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 checked="" type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input checked="" 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 checked="" type="checkbox"/> Application Fee |

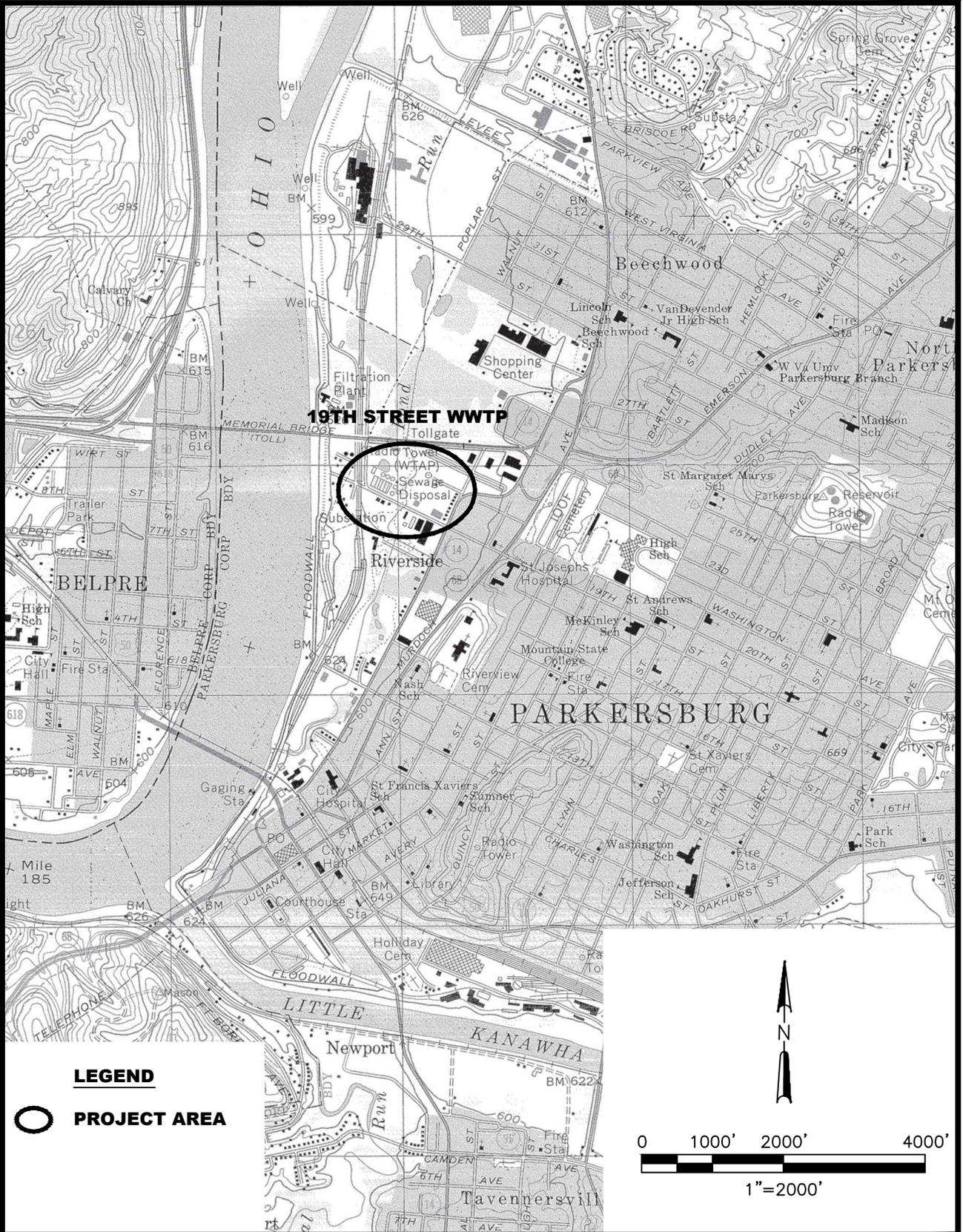
Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

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.

APPLICATION FOR NSR PERMIT
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV
ATTACHMENT A - BUSINESS CERTIFICATE



LEGEND

 **PROJECT AREA**



0 1000' 2000' 4000'

1"=2000'

**ATTACHMENT B
MAP
NSR PERMIT APPLICATION
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV**

SA
STRAND
ASSOCIATES®

ATTACHMENT B
1252.054

APPLICATION FOR NSR PERMIT
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV
ATTACHMENT C - INSTALLATION AND STARTUP SCHEDULE

The notice to proceed for the contract in which these emission units are included was signed on September 9, 2015.

Unit 1 is an existing emergency generator.

Unit 2 is scheduled to arrive on site in April, 2015 and installed and brought online by June, 2015.

Unit 3 is an existing boiler.

Unit 4 is a new boiler that is scheduled to arrive in April, 2015 and installed and brought online before March 8, 2015.

The flare has arrived onsite as of the submission of this application and is expected to be brought online by March 31.

APPLICATION FOR NSR PERMIT
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV
ATTACHMENT D - REGULATORY DISCUSSION

List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (if known). Discuss applicability and proposed demonstration(s) of compliance (if known).

All Emission Units

- 45 CSR 4 The facility shall not cause, suffer, allow, or permit discharge of air pollutants which cause or contribute to objectionable odor at any location occupied by the public.
- 45 CSR 13 This rule requires the facility to obtain a permit or revise a permit and to operate within the limits of the permit and in accordance with the permit application.
- 45 CSR 16 All new units must follow all applicable NSPS rules.
- 45 CSR 34 The facility is an area source of Hazardous Air Pollutants and component units must follow all applicable NESHAP rules.

Compression-Ignition Internal Combustion Engines (Emergency Generators)

- 40 CFR 60 Based on the EPA NSPS ICE application quiz (<http://www.epa.gov/ttn/atw/ice/quiz.html>), the attached documents show the applicability of Subpart IIII.
- 40 CFR 63 Based on the EPA NESHAP ICE application quiz (<http://www.epa.gov/ttn/atw/rice/output/quiz.html>), for both engines, the only requirement is that the engines are subject to 40 CFR 60 Subpart IIII.

Natural Gas/Digester Gas Boilers

- 40 CFR 60 It appears that the boilers may be subject to federal New Source Performance Standards Subpart Dc. Boilers installed or modified after June 9, 1989, with a heat input capacity between 10 and 100 MMBtu/hr are subject to NSPS Subpart Dc. Because these boilers are under 10 MMBtu/hr, they are not subject to NSPS Subpart Dc requirements.
- 40 CFR 63 Boilers with a heat capacity over 10 MMBtu/hr are subject to National Emission Standards for Hazardous Air Pollutants Subpart 5J. Because these boilers are gas-fired only, they are not subject to NESHAP Subpart JJJJJ requirements.
- 45 CSR 2 Any fuel burning units having a heat input under 10 MMBtu/hr will be exempt from most of the applicable requirements of this rule except for the visible emission standard of 2-3.1.

APPLICATION FOR NSR PERMIT
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV

- 45 CSR 10 Any fuel burning units having a heat input under 10 MMBtu/hr will be exempt from most of the applicable requirements of this rule except for the sulfur content of the fuel in 10-5. The sulfur content of the process gas is about 0.26 grains per 100 cubic feet which is much lower than the 50 grains per 100 cubic feet limit.

Summary of Requirements¹
40 CFR part 60, subpart III
Standards of Performance for Stationary Compression Ignition
Internal Combustion Engines

For pre-2007 model year **emergency** engines with displacement of less than 10 liters/cylinder,
(except fire pump engines)
constructed after July 11, 2005 and manufactured after April 1, 2006

NOTE: To refer directly to the regulatory text, please go to [Subpart III](#) (scroll down to almost the end of the page).

Temporary Engines:

Per 60.4200(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

Emission Standards: 60.4205(a), Table 1

60.4205(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

Per 60.4215(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205. Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the emission standards in 60.4215(c).

Special requirements apply to engines used in Alaska. Please refer to 60.4216 for the specific requirements and provisions that apply to engines that are located in areas of Alaska not accessible by the FAHS.

¹Disclaimer: The content provided in this software tool is intended solely as assistance for potential reporters to aid in assessing requirements for compliance under the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60 Subpart III. Any variation between the rule and the information provided in this tool is unintentional, and, in the case of such variations, the requirements of the rule govern. Use of this tool does not constitute an assessment by EPA of the applicability of the rule to any particular facility. In any particular case, EPA will make its assessment by applying the law and regulations to the specific facts of the case.

Fuel Requirements: 60.4207(a), (b), (e)

60.4207(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

Per 60.4215(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in 40 CFR 60.4207.

Per 60.4217 Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

Importing/Installing Requirements: 60.4208(a), (b), (h), (i)

60.4208(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

Monitoring Requirements: 60.4209(a); if equipped with diesel particulate filter: 60.4209(b)

60.4209(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

If your engine is equipped with a diesel particulate filter: 60.4209(b)

60.4209(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

Compliance Requirements: 60.4206, 60.4211(a), (b), (f), (g)

60.4206 Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

60.4211(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited.

If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

Testing Requirements: 60.4212

60.4212 Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and

according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

Notification, Reports, and Records Requirements: 60.4214(b); If equipped with DPF: 60.4214(c); If >100 HP and > 15 hrs/yr for emergency DR: 60.4214(d)

60.4214(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

If your engine is equipped with a diesel particulate filter: 60.4214(c)

60.4214(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

If your engine is greater than 100 HP and used more than 15 hours a year for emergency demand response:

60.4214(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

- (i) Company name and address where the engine is located.
- (ii) Date of the report and beginning and ending dates of the reporting period.
- (iii) Engine site rating and model year.
- (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
- (v) Hours operated for the purposes specified in § 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(2)(ii) and (iii).
- (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 60.4211(f)(2)(ii) and (iii).
- (vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.

General Provisions: Table 8

Summary of Requirements¹
40 CFR part 60, subpart III
Standards of Performance for Stationary Compression Ignition
Internal Combustion Engines

For 2007 model year and later **emergency** engines with <30 l/cyl,
constructed after July 11, 2005 and manufactured after April 1, 2006

NOTE: To refer directly to the regulatory text, please go to [Subpart III](#) (scroll down to almost the end of the page).

Temporary Engines:

Per 60.4200(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

Emission Standards: 60.4205(b), 60.4202

60.4205(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

60.4202 (a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

- (i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and
- (ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

¹Disclaimer: The content provided in this software tool is intended solely as assistance for potential reporters to aid in assessing requirements for compliance under the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60 Subpart III. Any variation between the rule and the information provided in this tool is unintentional, and, in the case of such variations, the requirements of the rule govern. Use of this tool does not constitute an assessment by EPA of the applicability of the rule to any particular facility. In any particular case, EPA will make its assessment by applying the law and regulations to the specific facts of the case.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the FAHS; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

Fuel Requirements: 60.4207(a), (b), (e)

60.4207(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

Per 60.4215(b) stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in 40 CFR 60.4207.

Special requirements apply to engines used in Alaska. Please refer to 60.4216 for the specific requirements and provisions that apply to engines that are located in areas of Alaska not accessible by the FAHS.

Per 60.4217 Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

Importing/Installing Requirements: 60.4208(a), (b), (h), (i)

60.4208(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

Monitoring Requirements: 60.4209(a); If your engine is equipped with a diesel particulate filter:
60.4209(b)

60.4209(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

If your engine is equipped with a diesel particulate filter: 60.4209(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

Compliance Requirements: 60.4206, 60.4211(a), (c), (f), (g)

60.4206 Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

60.4211(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the

emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

Testing Requirements: 60.4212

60.4212 Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

Notification, Reports, and Records Requirements: 60.4214(b); If equipped with DPF: 60.4214(c); If >100 HP and > 15 hrs/yr for emergency DR: 60.4214(d)

60.4214(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

If your engine is equipped with a diesel particulate filter: 60.4214(c)

60.4214(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

If your engine is greater than 100 HP and used more than 15 hours a year for emergency demand response:

60.4214(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

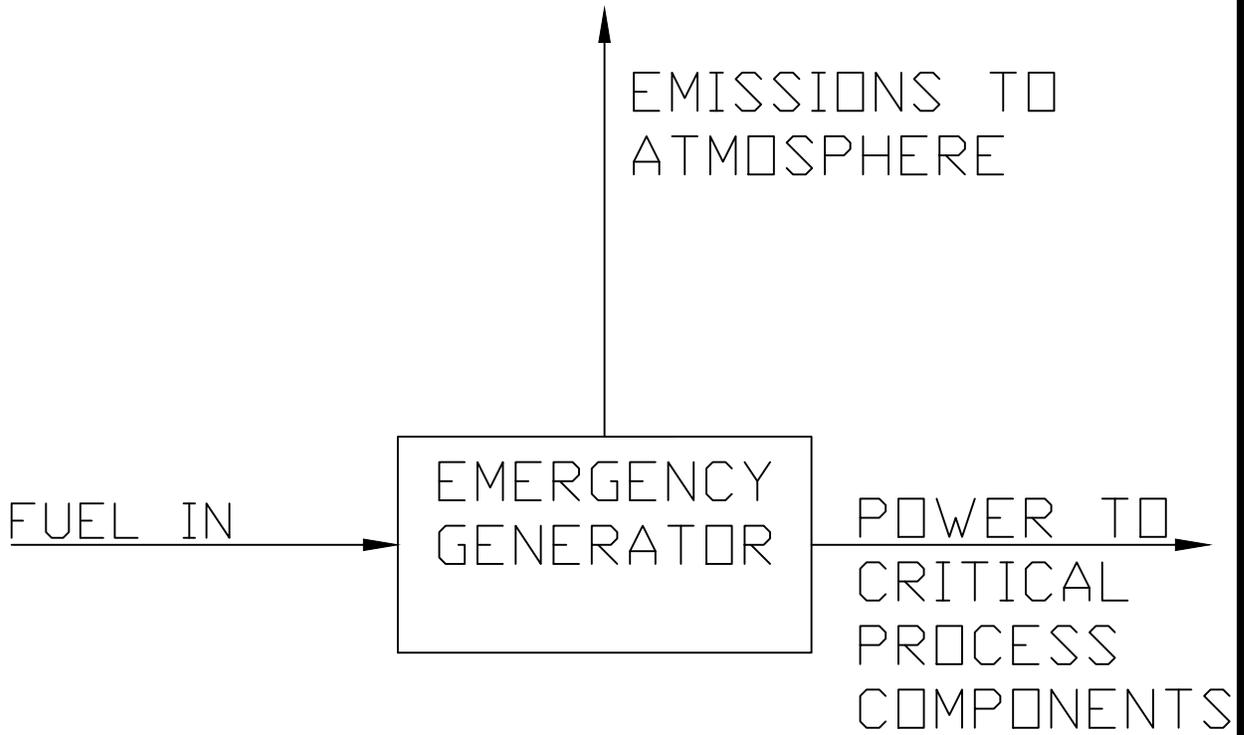
(1) The report must contain the following information:

- (i) Company name and address where the engine is located.
- (ii) Date of the report and beginning and ending dates of the reporting period.
- (iii) Engine site rating and model year.
- (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
- (v) Hours operated for the purposes specified in § 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(2)(ii) and (iii).
- (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 60.4211(f)(2)(ii) and (iii).
- (vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.

General Provisions (40 CFR part 60): Table 8

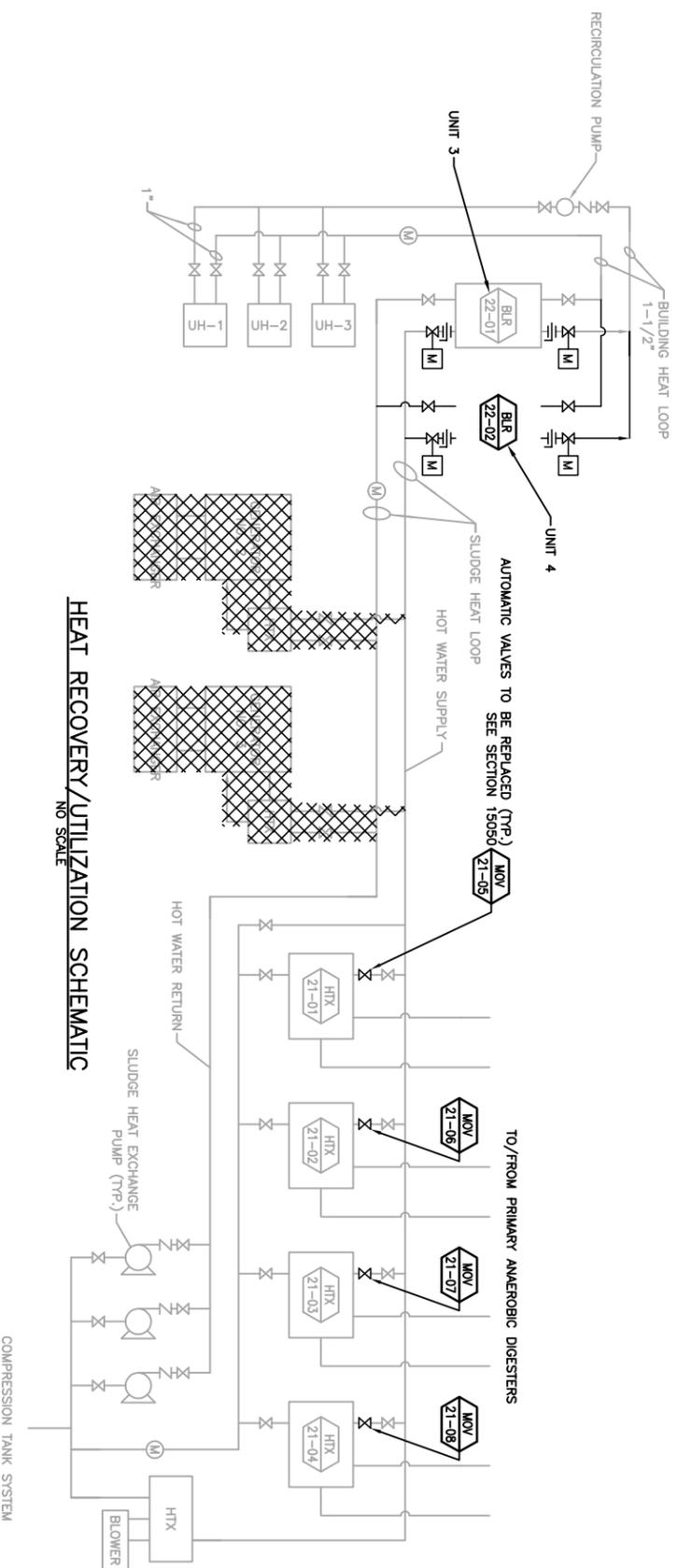


ATTACHMENT F
PROCESS FLOW DIAGRAM
19TH STREET WASTEWATER TREATMENT PLANT
EMERGENCY GENERATOR
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV



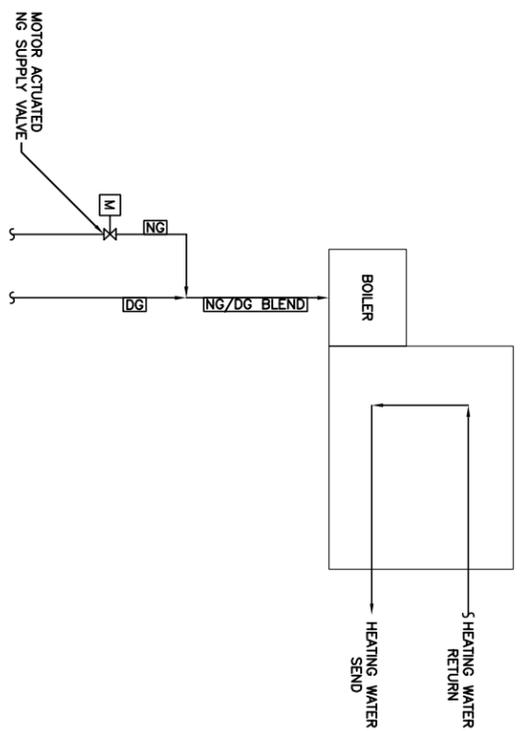
ATTACHMENT F

1252.054

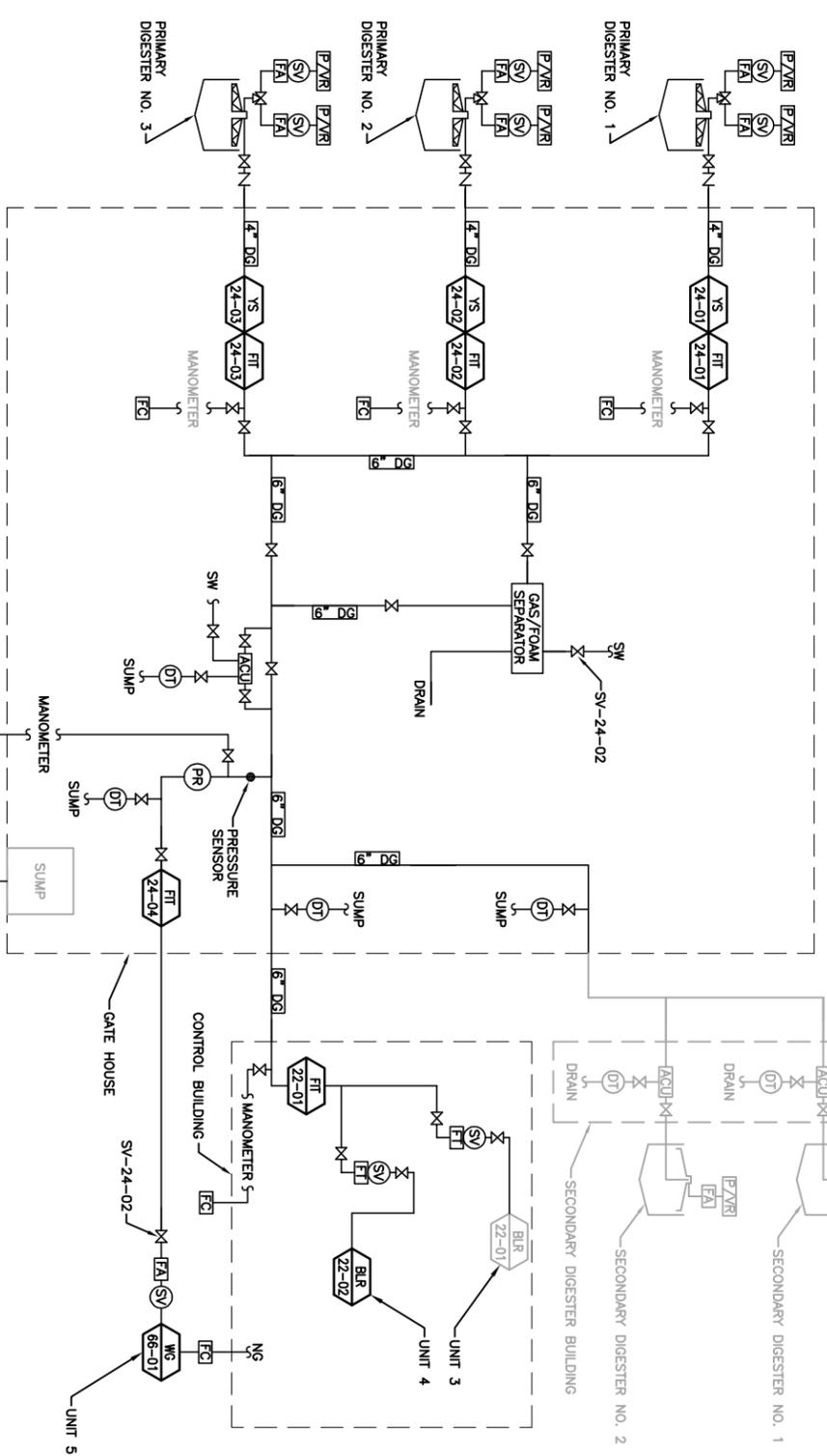


LEGEND:
 [Cross-hatched box] OBJECTS TO BE REMOVED
 [Solid line] EXISTING STRUCTURE/FLOW
 [Dashed line] PROPOSED STRUCTURE/FLOW

GENERAL NOTES OVERALL:
 1. SCHEMATICS DO NOT INCLUDE ALL VALVES, GATES, INSTRUMENTATION DEVICES, AND APPURTENANCES AND ARE INTENDED FOR GENERAL USE. CONTRACTOR SHOULD REVIEW DETAILED DRAWING AND SPECIFIED AND INCLUDE ALL ITEMS REQUIRED FOR THIS CONTRACT.



BOILER SCHEMATIC
NO SCALE



DIGESTER GAS SCHEMATIC
NO SCALE

GENERAL NOTES FOR DIGESTER GAS PIPING:

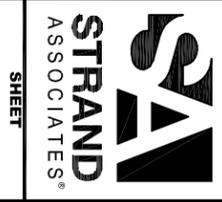
1. ALL PIPING TO SLOPE TO A DRIP TRAP OR ACCUMULATOR AT A MINIMUM OF 1/8" PER FOOT.
2. DRIP TRAP TO BE PROVIDED AT ALL LOW POINTS IN THE PIPING, IN ADDITION TO LOCATIONS SHOWN.
3. FLEXIBLE PIPE AND ISOLATION VALVES NOT SHOWN ON DIGESTER GAS SCHEMATIC.

NO.	REVISIONS	DATE:

**ATTACHMENT F
 PROCESS FLOW DIAGRAMS
 NSR PERMIT APPLICATION**

19TH STREET WASTEWATER TREATMENT PLANT
 PARKERSBURG UTILITY BOARD
 PARKERSBURG, WEST VIRGINIA

JOB NO.
1252.054
 PROJECT MGR.
SCOTT STEARNS



APPLICATION FOR NSR PERMIT
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV

ATTACHMENT G - PROCESS DESCRIPTIONS

Units 1 and 2 provide emergency power during eminent blackout scenarios. Both generators burn diesel fuel to produce power and vent directly from the internal combustion engine.

Units 3 and 4 provide energy to heat water that is then used in multiple heat exchangers to provide building heat and sludge heating (two separate loops). The boilers utilize digester gas as its primary fuel. When digester gas is insufficient, it is supplemented with natural gas. The burner heats the fire tubes that carry heating water through the boiler.

Unit 5 is part of the digester gas safety system. Excess gas produced by the primary digesters that is not stored in the secondary digesters or utilized by the boilers is flared to safely release the methane/carbon dioxide mixture to the atmosphere. The flare switches on whenever pressure in the digester gas piping exceeds a set point via a pressure switch.

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data

Emission Point ID No.	Emission Point Type ¹	Emission Unit Vented Through This Point		Air Pollution Control Device		Vent Time for Emission Unit		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ⁴)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
1E	Vent	1S	Generator	N	None	NA	NA	PM SO2 NOx CO VOC HAP	0.50 5.50 40.57 2.72 6.62 0.08	0.13 1.37 10.14 0.68 1.66 0.02	0.50 5.50 40.57 2.72 6.62 0.08	0.13 1.37 10.14 0.68 1.66 0.02	Solid Vapor Vapor Vapor Vapor	Manuf. AP-42 Manuf. AP-42	NA
2E	Vent	2S	Generator	N	None	NA	NA	PM SO2 NOx CO VOC HAP	1.35 1.27 19.27 4.15 1.57 0.02	0.34 0.32 4.82 1.04 0.39 0.00	1.35 1.27 19.27 4.15 1.57 0.02	0.34 0.32 4.82 1.04 0.39 0.00	Solid Vapor Vapor Vapor Vapor Vapor	AP-42 AP-42 AP-42 AP-42 AP-42 AP-42	NA
3E	Vertical Stack	3S	Boiler	N	None	NA	NA	PM SO2 NOx CO VOC HAP	0.02 0.00 0.30 0.26 0.02 0.00	0.11 0.01 1.31 1.14 0.09 0.03	0.02 0.00 0.30 0.26 0.02 0.00	0.11 0.01 1.31 1.14 0.09 0.03	Solid Vapor Vapor Vapor Vapor Vapor	AP-42 AP-42 AP-42 AP-42 AP-42 AP-42	NA
4E	Vertical Stack	4S	Boiler	N	None	NA	NA	PM SO2 NOx CO VOC HAP	0.02 0.00 0.30 0.26 0.02 0.00	0.11 0.01 1.31 1.14 0.09 0.03	0.02 0.00 0.30 0.26 0.02 0.00	0.11 0.01 1.31 1.14 0.09 0.03	Solid Vapor Vapor Vapor Vapor Vapor	AP-42 AP-42 AP-42 AP-42 AP-42 AP-42	NA
5E	Vertical Stack	5S	Flare	N	None	NA	NA	PM SO2 NOx CO VOC HAP	0.05 0.00 0.59 0.51 0.04 0.01	0.21 0.02 2.58 2.24 0.17 0.05	0.05 0.00 0.59 0.51 0.04 0.01	0.21 0.02 2.58 2.24 0.17 0.05	Solid Vapor Vapor Vapor Vapor Vapor	AP-42 AP-42 AP-42 AP-42 AP-42 AP-42	NA

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	0.67	978	16,615	793	596.50	10.5 feet	4328.215	452.144
2E	0.50	910	3,655	310	600.00	8 feet	4348.164	451.934
3E	1.33	375	51	36.364	600.00	26 feet	4348.159	451.909
4E	1.33	375	51	36.364	600.00	26 feet	4348.157	451.944
5E	0.50	375	100	9.324	596.00	16 feet	4348.178	451.972

¹ Give at operating conditions. Include inerts.

² Release height of emissions above ground level.

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*): Unit 1

<p>1. Name or type and model of proposed affected source:</p> <p>Caterpillar Internal Combustion Generator, Model 3516B</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>Power Production: 3286 BHP; 2000 kW</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>$4 C_{12}H_{23} + 71 O_2 \rightarrow 48 CO_2 + 46 H_2O$</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:			
Diesel Fuel Usage: 144.0 gal/hr			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
Ingredient Name			
Diesel Fuel, A distillate oil having a minimum viscosity of 32.6 SUS at 37.7.degree.C (100.degree.F) to a maximum of 40.1 SUS at 37.7.degree.C (100.degree.F)			
CAS Number			
68476-34-6			
% by Wt.			
100			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
1570 ACF/Gallon	@	68	°F and 14.696 psia.
(d) Percent excess air: 36.5%			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
N/A			
(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: 18.54 × 10 ⁶ BTU/hr.			
7. Projected operating schedule:			
Hours/Day	1	Days/Week	1
		Weeks/Year	50

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

		@	978	°F and	15.7	psia
a.	NO _x		40.57	lb/hr	0.28	grains/ACF
b.	SO ₂		5.5	lb/hr	0.04	grains/ACF
c.	CO		2.72	lb/hr	0.02	grains/ACF
d.	PM ₁₀		0.5	lb/hr	0.00	grains/ACF
e.	Hydrocarbons		1.67	lb/hr	0.01	grains/ACF
f.	VOCs		6.62	lb/hr	0.05	grains/ACF
g.	Pb		--	lb/hr	--	grains/ACF
h.	Specify other(s)			lb/hr		grains/ACF
				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
 PUB recommends following the monitoring plan as outlined General Permit G60.

RECORDKEEPING
 PUB recommends following the recordkeeping plan as outlined General Permit G60.

REPORTING
 PUB recommends following the reporting plan as outlined General Permit G60.

TESTING
 PUB recommends following the testing plan as outlined General Permit G60.

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

Operate the system weekly to ensure good operation. Regularly check moving parts and grease/oil as prescribed in the operation and maintenance manual.

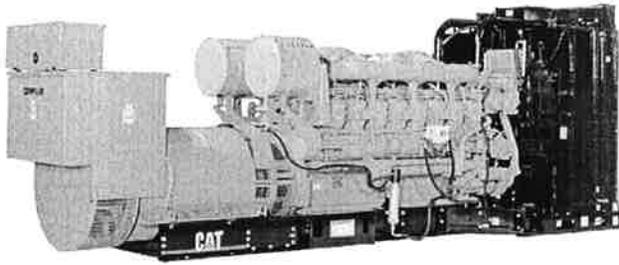


Image shown may not reflect actual package.

STANDBY 2000 ekW 2500 kVA 60 Hz 1800 rpm 480 Volts

Caterpillar® is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost-effectiveness.

FEATURES

FUEL/EMISSIONS STRATEGY

- Low emissions

UL 2200

- UL 2200 Listed configuration available

FULL RANGE OF ATTACHMENTS

- Wide range of bolt-on system expansion attachments, factory designed and tested

ENCLOSURES (optional)

- Weather protective and sound attenuated

SINGLE-SOURCE SUPPLIER

- Fully prototype tested with certified torsional vibration analysis available

WORLDWIDE PRODUCT SUPPORT

- Worldwide parts availability through the Caterpillar dealer network
- With over 1844 dealer branch stores operating in 166 countries, you're never far from the Caterpillar part you need
- 99.7% of parts orders filled within 24 hours. The best product support record in the industry
- Caterpillar dealer service technicians are trained to service every aspect of your electric power generation system
- Preventive maintenance agreements
- The Cat Scheduled Oil Sampling (S•O•SSM) program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products



CAT® 3516B TA DIESEL ENGINE

- Reliable, rugged, durable design
- Field-proven in thousands of applications worldwide
- Four-stroke-cycle diesel engine combines consistent performance and excellent fuel economy with minimum weight
- UL 2200 Listed packages are available. Certain restrictions may apply. Consult with your Caterpillar dealer



CAT SR4B GENERATOR

- Designed to match performance and output characteristics of Caterpillar diesel engines
- Optimum winding pitch for minimum total harmonic distortion and maximum efficiency
- Single point access to accessory connections
- UL 1446 recognized Class H insulation system



CAT CONTROL PANELS

- Controls designed to meet individual customer needs:
 - EMCP II+ provides full-featured power metering and protective relaying
- UL 508A Listed

FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional
Air Inlet	<ul style="list-style-type: none"> • Single element canister type air cleaner • Service indicator 	<ul style="list-style-type: none"> • Dual element & heavy duty air cleaners • Air inlet adapters & shutoff
Cooling	<ul style="list-style-type: none"> • Radiator with guard (43°C) • Coolant drain line with valve • Fan and belt guards • Caterpillar Extended Life Coolant* • Coolant level sensors <p>*Not included with packages without radiators</p>	<ul style="list-style-type: none"> • Radiator with 50°C ambient capability • Radiator removal • Heat exchanger and expansion tank • Radiator duct flange • Coolant level switch gauge • Jacket water heater
Exhaust	<ul style="list-style-type: none"> • Dry exhaust manifold • Flanged faced outlets 	<ul style="list-style-type: none"> • Mufflers (15 dba) • Stainless steel exhaust flex fittings • Elbows, flanges, expanders & Y adapters
Fuel	<ul style="list-style-type: none"> • Secondary fuel filters • Fuel priming pump • Flexible fuel lines • Fuel cooler* <p>*Not included with packages without radiators</p>	<ul style="list-style-type: none"> • Water separator • Duplex fuel filter
Generator	<ul style="list-style-type: none"> • Permanent magnet excited • Class H insulation • Class F temperature (105°C prime/130°C standby) • Reactive droop • Digital Voltage Regulator, 3-phase sensing • Bus bar connections • Winding temperature detectors • Anti-condensation space heaters 	<ul style="list-style-type: none"> • Digital Voltage Regulator with KVAR/PF control • Bearing temperature detectors • Oversize & premium generators • Cable access box • European bus bars • Circuit breakers, UL listed, 3 pole with shunt trip (low & medium voltage only) • Circuit breakers, IEC compliant, 3-pole with shunt trip (low & medium voltage only)
Governing	<ul style="list-style-type: none"> • ADEM II 	<ul style="list-style-type: none"> • Load share module
Control Panels	<ul style="list-style-type: none"> • EMCP II+ (package mounted, rear facing) 	<ul style="list-style-type: none"> • Customer Communication Module • Local alarm modules • Remote annunciator modules • Auto starting aid & switch* <p>*Cannot be used with UL LIST</p>
Lube	<ul style="list-style-type: none"> • Lubricating oil and filter • Oil drain line with valves • Fumes disposal • Gear type lube oil pump 	<ul style="list-style-type: none"> • Oil level regulator • Deep sump oil pan • Electric & air prelube pumps • Manual prelube with sump pump • Duplex oil filter • Oil level regulator
Mounting	<ul style="list-style-type: none"> • 330 mm (13 in) structural steel rails • Spring-type, anti-vibration mounts (shipped loose) 	<ul style="list-style-type: none"> • Isolator removal
Starting/Charging	<ul style="list-style-type: none"> • 24 volt starting motor(s) • 45 amp charging alternator • Batteries with rack and cables • Battery disconnect switch 	<ul style="list-style-type: none"> • Battery chargers (10 Amp) • Oversize batteries • Ether starting aids • Heavy duty starting motors • Barring device (manual) • Air starting motor with control & silencer
General	<ul style="list-style-type: none"> • Right-hand service • Paint - Caterpillar Yellow except rails and radiators gloss black • SAE standard rotation • Flywheel and flywheel housing - SAE No. 00 	<ul style="list-style-type: none"> • Enclosures • Front stub shaft • CSA certification • EU Certificate of Conformance
Note	Standard and optional equipment may vary for UL 2200 Listed Packages. UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics.	

STANDBY 2000 ekW 2500 kVA
60 Hz 1800 rpm 480 Volts

CATERPILLAR®

TECHNICAL DATA

Open Generator Set - — 1800 rpm/60 Hz/480 Volts	STANDBY DM4703	
Package Performance Power rating Power rating @ 0.8 pf	2000 ekW 2500 kVA	
Low Emissions Coolant to aftercooler temp max	90 Deg C	194 Deg F
Fuel Consumption 100% load with fan 75% load with fan 50% load with fan	545.0 L/hr 408.4 L/hr 282.2 L/hr	144.0 Gal/hr 107.9 Gal/hr 74.5 Gal/hr
Cooling System* Air flow restriction (system) Engine coolant capacity Radiator coolant capacity Engine coolant capacity with radiator	.12 kPa 233.0 L 276.0 L 509.0 L	0.48 in. water 61.6 Gal 72.9 Gal 134.5 Gal
Exhaust System Combustion air inlet flow rate Exhaust stack gas temperature Exhaust gas flow rate Exhaust flange size (internal diameter) Exhaust system backpressure (maximum allowable)	168.1 m ³ /min 525.7 Deg C 470.5 m ³ /min 203.2 mm 6.7 kPa	5,936.4 cfm 978 Deg F 16,615.6 cfm 8.0 in 26.9 in. water
Heat Rejection Heat rejection to coolant (total) Heat rejection to exhaust (total) Heat rejection to atmosphere from engine Heat rejection to atmosphere from generator	834 kW 2186 kW 168 kW 75.14 kW	47,429 Btu/min 124,318 Btu/min 9,554 Btu/min 4,273.2 Btu/min
Alternator** Motor starting capability @ 30% voltage dip Frame Temperature Rise	4418 skVA 825 130 Deg C	
Lube System Lube oil refill volume with filter change for standard sump	401.3 L	106.0 Gal
Emissions (Nominal)** NOx g/hp-hr CO g/hp-hr HC g/hp-hr PM g/hp-hr	6.96 g/hp-hr 0.46 g/hp-hr 0.11 g/hp-hr 0.085 g/hp-hr	

*Ambient capability at 200 m (660 ft) above sea level. For ambient capability at other altitudes, consult your Caterpillar dealer.

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

***Emissions data measurements are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. This engine's exhaust emissions are in compliance with the US EPA and California nonroad regulations as identified above. 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.

STANDBY 2000 e kW 2500 kVA
60 Hz 1800 rpm 480 Volts

CATERPILLAR®

RATING DEFINITIONS AND CONDITIONS

Meets or Exceeds International Specifications: - ABGSM TM3, AS1359, AS2789, BS4999, BS5000, BS5514, DIN6271, DIN6280, EGSA101P, IEC34/1, ISO3046/1, ISO8528, JEM1359, NEMA MG 1-22, VDE0530, 89/392/EEC, 89/336/EEC

Standby - Output available with varying load for the duration of the interruption of the normal source power. Standby power in accordance with ISO8528. Fuel stop power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514. Standby ambients shown indicate ambient temperature at 100 percent load which results in a coolant top tank temperature just below the shut-down temperature.

Ratings are based on SAE J1995 standard conditions. These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions.

Fuel Rates are based on fuel oil of 35° API (16° C or 60° F) gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

Additional Ratings may be available for specific customer requirements. Consult your Caterpillar representative for details.

Package Dimensions		
Length	5987.2 mm	235.72 in
Width	2645.3 mm	104.15 in
Height	3076.1 mm	121.11 in
Weight	13 766 kg	30,349 lb

Note: Do not use for installation design.
See general dimension drawings
for detail (Drawing #2001175).

TMI Reference No.: DM4703

www.CAT-ElectricPower.com

PL Reference No.: 516DE1N

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U.S. Sourced

LEHE2081 4 April 2002

43015

Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.

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*): Unit 2

<p>1. Name or type and model of proposed affected source:</p> <p>Caterpillar Internal Combustion Generator, Model C15</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>Power Production: 540 BHP, 400 kW</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>$4 C_{12}H_{23} + 71 O_2 \rightarrow 48 CO_2 + 46 H_2O$</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:			
Diesel Fuel Usage: 31.9 gal/hr			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
Ingredient Name			
Diesel Fuel, A distillate oil having a minimum viscosity of 32.6 SUS at 37.7.degree.C (100.degree.F) to a maximum of 40.1 SUS at 37.7.degree.C (100.degree.F)			
CAS Number			
68476-34-6			
% by Wt.			
100			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
1570 ACF/Gallon	@	68	°F and 14.696 psia.
(d) Percent excess air: 36.5%			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
N/A			
(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: 4.370 × 10 ⁶ BTU/hr.			
7. Projected operating schedule:			
Hours/Day	1	Days/Week	1
		Weeks/Year	50

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

@	910	°F and	15.7	psia
a. NO _x	19.27	lb/hr	0.62	grains/ACF
b. SO ₂	1.27	lb/hr	0.04	grains/ACF
c. CO	4.15	lb/hr	0.13	grains/ACF
d. PM ₁₀	1.35	lb/hr	0.04	grains/ACF
e. Hydrocarbons	1.53	lb/hr	0.05	grains/ACF
f. VOCs	1.57	lb/hr	0.05	grains/ACF
g. Pb	--	lb/hr	--	grains/ACF
h. Specify other(s)		lb/hr		grains/ACF
		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
 PUB recommends following the monitoring plan as outlined General Permit G60.

RECORDKEEPING
 PUB recommends following the recordkeeping plan as outlined General Permit G60.

REPORTING
 PUB recommends following the reporting plan as outlined General Permit G60.

TESTING
 PUB recommends following the testing plan as outlined General Permit G60.

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

Operate the system weekly to ensure good operation. Regularly check moving parts and grease/oil as prescribed in the operation and maintenance manual.



Image shown may not reflect actual package.

STANDBY 400 ekW 500 kVA 60 Hz 1800 rpm 480 Volts

Caterpillar is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost-effectiveness.

FEATURES

FUEL/EMISSIONS STRATEGY

- EPA Certified for Stationary Emergency Application (EPA Tier 3 emissions levels)

DESIGN CRITERIA

- The generator set accepts 100% rated load in one step per NFPA 110 and meets ISO 8528-5 transient response

UL 2200 / CSA – Optional

- UL 2200 Listed packages
- CSA Certified

Certain restrictions may apply.

Consult with your Cat® Dealer.

FULL RANGE OF ATTACHMENTS

- Wide range of bolt-on system expansion attachments, factory designed and tested
- Flexible packaging options for easy and cost effective installation

SINGLE-SOURCE SUPPLIER

- Fully prototype tested with certified torsional vibration analysis available

WORLDWIDE PRODUCT SUPPORT

- Cat dealers provide extensive post sale support including maintenance and repair agreements
- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- The Cat S•O•SSM program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

CAT C15 ATAAC DIESEL ENGINE

- Utilizes ACERT™ Technology
- Reliable, rugged, durable design
- Field-proven in thousands of applications worldwide
- Four-stroke-cycle diesel engine combines consistent performance and excellent fuel economy with minimum weight
- Electronic controlled governor

CAT GENERATOR

- Matched to the performance and output characteristics of Cat engines
- UL 1446 Recognized Class H insulation
- CSA Certified

CAT EMCP 4 CONTROL PANELS

- Simple user friendly interface and navigation
- Scalable system to meet a wide range of customer needs
- Integrated Control System and Communications Gateway
- Integrated Voltage Regulation

SEISMIC CERTIFICATION

- Seismic Certification available
- Anchoring details are site specific, and are dependent on many factors such as generator set size, weight, and concrete strength.

IBC Certification requires that the anchoring system used is reviewed and approved by a Professional Engineer

- Seismic Certification per Applicable Building Codes: IBC 2000, IBC 2003, IBC 2006, IBC 2009, IBC 2012, CBC 2007, CBC 2010

STANDBY 400 ekW 500 kVA
60 Hz 1800 rpm 480 Volts



FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional
Air Inlet	<ul style="list-style-type: none"> • Disposable air filter 	<input type="checkbox"/> Canister type, dual element <input type="checkbox"/> Heavy duty air cleaner
Cooling	<ul style="list-style-type: none"> • Package mounted radiator 	
Exhaust	<ul style="list-style-type: none"> • Exhaust flange outlet 	<input type="checkbox"/> Industrial <input type="checkbox"/> Residential / Critical
Fuel	<ul style="list-style-type: none"> • Primary fuel filter with integral water separator • Secondary fuel filters • Fuel priming pump 	
Generator	<ul style="list-style-type: none"> • Matched to the performance and output characteristics of Cat engines • IP23 Protection 	<input type="checkbox"/> Permanent magnet excitation (PMG) <input type="checkbox"/> Anti-condensation space heater <input type="checkbox"/> Internal excitation (IE) <input type="checkbox"/> Coastal insulation protection
Power Termination	<ul style="list-style-type: none"> • Power terminal strips 	<input type="checkbox"/> Circuit breakers – 100% rated assembly, UL Listed <input type="checkbox"/> SUSE (Suitable for use as service equipment)
Control Panels	<ul style="list-style-type: none"> • EMCP 4.2 	<input type="checkbox"/> EMCP 4.3 <input type="checkbox"/> EMCP 4.4 <input type="checkbox"/> Local and remote annunciator modules <input type="checkbox"/> Remote monitoring software
Mounting	<ul style="list-style-type: none"> • Rubber vibration isolators 	
Starting/Charging	<ul style="list-style-type: none"> • 24 volt starting motor & charging alternator • Batteries 	<input type="checkbox"/> Battery chargers <input type="checkbox"/> Oversize batteries <input type="checkbox"/> Jacket water heater
General	<ul style="list-style-type: none"> • Paint - Caterpillar Yellow except rails and radiators gloss black • Narrow skid base 	<p>The following options are based on regional and product configuration:</p> <input type="checkbox"/> Seismic Certification per Applicable Building Codes: IBC 2000, IBC 2003, IBC 2006, IBC 2009, IBC 2012, CBC 2007, CBC 2010 <input type="checkbox"/> UL 2200 Listed package <input type="checkbox"/> CSA Certified <input type="checkbox"/> Wide skid base <input type="checkbox"/> Sound attenuated enclosure <input type="checkbox"/> Weather protective enclosure <input type="checkbox"/> Integral dual wall UL Listed 8 hr fuel tank <input type="checkbox"/> Sub-base dual wall UL Listed 24 hr fuel tank <input type="checkbox"/> Sub-base dual wall UL Listed 48 hr fuel tank

SPECIFICATIONS

STANDARD CAT GENERATOR	
Frame size	LC6114B
Excitation	Self Excitation
Pitch	0.6667
Number of poles	4
Number of bearings	Single bearing
Number of leads	12
Insulation	UL 1446 Recognized Class H with tropicalization and antiabrasion
IP Rating	IP23
Alignment	Pilot shaft
Overspeed capability (%)	125
Wave form deviation (%)	2
Voltage regulator	Three phase sensing
Voltage regulation	+/- 0.25% (steady state)
- Consult your Cat dealer for other available voltages	
CAT DIESEL ENGINE	
C15 ATAAC, I-6, 4-Stroke Water-cooled Diesel	
Bore	137.20 mm (5.4 in)
Stroke	171.40 mm (6.75 in)
Displacement	15.20 L (927.56 in ³)
Compression ratio	16.1:1
Aspiration	Air-to-air aftercooled
Fuel system	MEUI
Governor type	Caterpillar ADEM control system

CAT EMCP 4 SERIES CONTROLS

EMCP 4 controls including:

- Run / Auto / Stop Control
- Speed and Voltage Adjust
- Engine Cycle Crank
- 24-volt DC operation
- Environmental sealed front face
- Text alarm/event descriptions

Digital indication for:

- RPM
- DC volts
- Operating hours
- Oil pressure (psi, kPa or bar)
- Coolant temperature
- Volts (L-L & L-N), frequency (Hz)
- Amps (per phase & average)
- ekW, kVA, kVAR, kW-hr, %kW, PF (4.2 only)

Warning/shutdown with common LED indication of:

- Low oil pressure
- High coolant temperature
- Overspeed
- Emergency stop
- Failure to start (overcrank)
- Low coolant temperature
- Low coolant level

Programmable protective relaying functions:

- Generator phase sequence
- Over/Under voltage (27/59)
- Over/Under Frequency (81 o/u)
- Reverse Power (kW) (32) (4.2 only)
- Reverse reactive power (kVAr) (32RV)
- Overcurrent (50/51)

Communications:

- Four digital inputs (4.1)
- Six digital inputs (4.2 only)
- Four relay outputs (Form A)
- Two relay outputs (Form C)
- Two digital outputs
- Customer data link (Modbus RTU) (4.2 only)
- Accessory module data link (4.2 only)
- Serial annunciator module data link (4.2 only)
- Emergency stop pushbutton

Compatible with the following:

- Digital I/O module
- Local Annunciator
- Remote CAN annunciator
- Remote serial annunciator

STANDBY 400 ekW 500 kVA

60 Hz 1800 rpm 480 Volts



TECHNICAL DATA

Open Generator Set - - 1800 rpm/60 Hz/480 Volts	DM8151	
EPA Certified for Stationary Emergency Application (EPA Tier 3 emissions levels)		
Generator Set Package Performance Genset power rating @ 0.8 pf Genset power rating with fan	500 kVA 400 ekW	
Fuel Consumption 100% load with fan 75% load with fan 50% load with fan	120.6 L/hr 97.5 L/hr 72.0 L/hr	31.9 gal/hr 25.8 gal/hr 19.0 gal/hr
Cooling System¹ Air flow restriction (system) Air flow (max @ rated speed for radiator arrangement) Engine Coolant capacity with radiator/exp. tank Engine coolant capacity Radiator coolant capacity	0.12 kPa 639 m ³ /min 50.3L 20.8 L 29.5 L	0.48 in. water 22566 cfm 13.3 gal 5.5 gal 7.8 gal
Inlet Air Combustion air inlet flow rate	38.8 m ³ /min	1370.2 cfm
Exhaust System Exhaust stack gas temperature Exhaust gas flow rate Exhaust flange size (internal diameter) Exhaust system backpressure (maximum allowable)	487.7°C 103.5 m ³ /min 152.4 mm 10.0 kPa	909.9°F 3655.1 cfm 6.0 in 40.2 in. water
Heat Rejection Heat rejection to coolant (total) Heat rejection to exhaust (total) Heat rejection to aftercooler Heat rejection to atmosphere from engine Heat rejection to atmosphere from generator	165 kW 463 kW 111 kW 81.0 kW 29.2 kW	9384 Btu/min 26331 Btu/min 6312 Btu/min 4606 Btu/min 1660.6 Btu/min
Alternator² Motor starting capability @ 30% voltage dip Frame Temperature rise	880 skVA LC6114B 150°C	270°F
Lubrication System Sump refill with filter	60.0 L	15.9 gal
Emissions (Nominal)³ NOx g/hp-hr CO g/hp-hr HC g/hp-hr PM g/hp-hr	3.49 g/hp-hr 0.35 g/hp-hr 0.04 g/hp-hr 0.034 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° C (104° F) ambient per NEMA MG1-32. Some 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 ISO8178-1 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.

STANDBY 400 ekW 500 kVA

60 Hz 1800 rpm 480 Volts



RATING DEFINITIONS AND CONDITIONS

Applicable Codes and Standards:

AS1359, CSA C22.2 No100-04, UL142, UL489, UL869, UL2200, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 72/23/EEC, 98/37/EC, 2004/108/EC.

Standby – Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

Fuel Rates are based on fuel oil of 35° API (16°C or 60°F) gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

Additional Ratings may be available for specific customer requirements. Consult your Cat representative for details.

STANDBY 400 ekW 500 kVA

60 Hz 1800 rpm 480 Volts



DIMENSIONS

Package Dimensions		
Length	3361 mm	132.3 in
Width	1502 mm	59.1 in
Height	2127 mm	83.7 in

NOTE: For reference only – do not use for installation design. Please contact your local dealer for exact weight and dimensions.

Performance No.: DM8151

Feature Code: C15DECD

Gen. Arr. Number: 4183863

Source: U.S. Sourced

LEHE0475 (12/13)

www.Cat-ElectricPower.com

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Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.

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**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*): Units 3 & 4

<p>1. Name or type and model of proposed affected source:</p> <p>Evoqua Dual Fuel Fire Tube Boiler, Model 2000B</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>Heat Production: 2 MMBtu/hr</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>$CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$ $2C_2H_6 + 7O_2 \rightarrow 4CO_2 + 6H_2O$</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: 1960 cf/hr Biogas: 3080 cf/hr			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
95% CH ₄ 2.5% C ₂ H ₆ 1.6% N ₂ 0.7% CO ₂ Trace Propane, Butane, Pentanes, H ₂ S, H ₂ O			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
9.5 ACF/ACF	@	68	°F and 14.696 psia.
(d) Percent excess air: Not Published.			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
1 Burner: 2 MMBtu/hr			
(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: 2 × 10 ⁶ BTU/hr.			
7. Projected operating schedule:			
Hours/Day	24	Days/Week	7
		Weeks/Year	365

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

	@	375	°F and	14.7	psia
a.	NO _x	0.3	lb/hr	0.69	grains/ACF
b.	SO ₂	0	lb/hr	0	grains/ACF
c.	CO	0.26	lb/hr	0.59	grains/ACF
d.	PM ₁₀	0.02	lb/hr	0.05	grains/ACF
e.	Hydrocarbons	0.02	lb/hr	0.05	grains/ACF
f.	VOCs	0.04	lb/hr	0.09	grains/ACF
g.	Pb	--	lb/hr	--	grains/ACF
h.	Specify other(s)		lb/hr		grains/ACF
			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

PUB recommends monitoring boiler water temperature, stack temperature, and a visual inspection of plume opacity.

RECORDKEEPING

PUB recommends keeping a record of all monitoring and testing. Maintain a boiler maintenance log.

REPORTING

PUB recommends submittal of test results annually.

TESTING

PUB recommends following the manufacturer's O&M recommendation of flue test with a commercial grade direct reading flue gas analyzer annually in order to ensure proper combustion is taking place.

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

Monthly: Check gas shut-off valve, grease blower bearings

Bi-Monthly: Check belts on exhaust fan, lubricate valves, Check high limit temp control setting

NOTES:

1. THE DISCHARGE FROM THE ASME PRESSURE RELIEF VALVE MUST BE BEING ATTENDED TO. THE PIPE SHALL NOT BE LESS THAN THE SIZE OF THE VALVE OUTLET. THE AN ELBOW IS USED IN THE PIPING. THE PIPE SHALL BE PLACED DIRECTLY TO THE FLOOR DRAIN AND THE RELIEF VALVE. THE PIPE SHALL GO DIRECTLY TO THE FLOOR DRAIN AND SHALL NOT BE PLACED IN A CLOSET OR UNDER A FLOOR. THE AREA OF THE RELIEF VALVE OUTLET(S). NO SHUTOFF VALVE IS ALLOWED ON THE PIPING REQUIREMENTS. THE ABOVE ARE ASME REQUIREMENTS.
2. SHIPPING WEIGHT: 6,400 #
3. GROSS OPERATING WEIGHT: 16,097#
4. TOTAL WATER: 921.2 GALLONS

2'-6" SPACE FOR ACCESS TO REAR OF HEATER

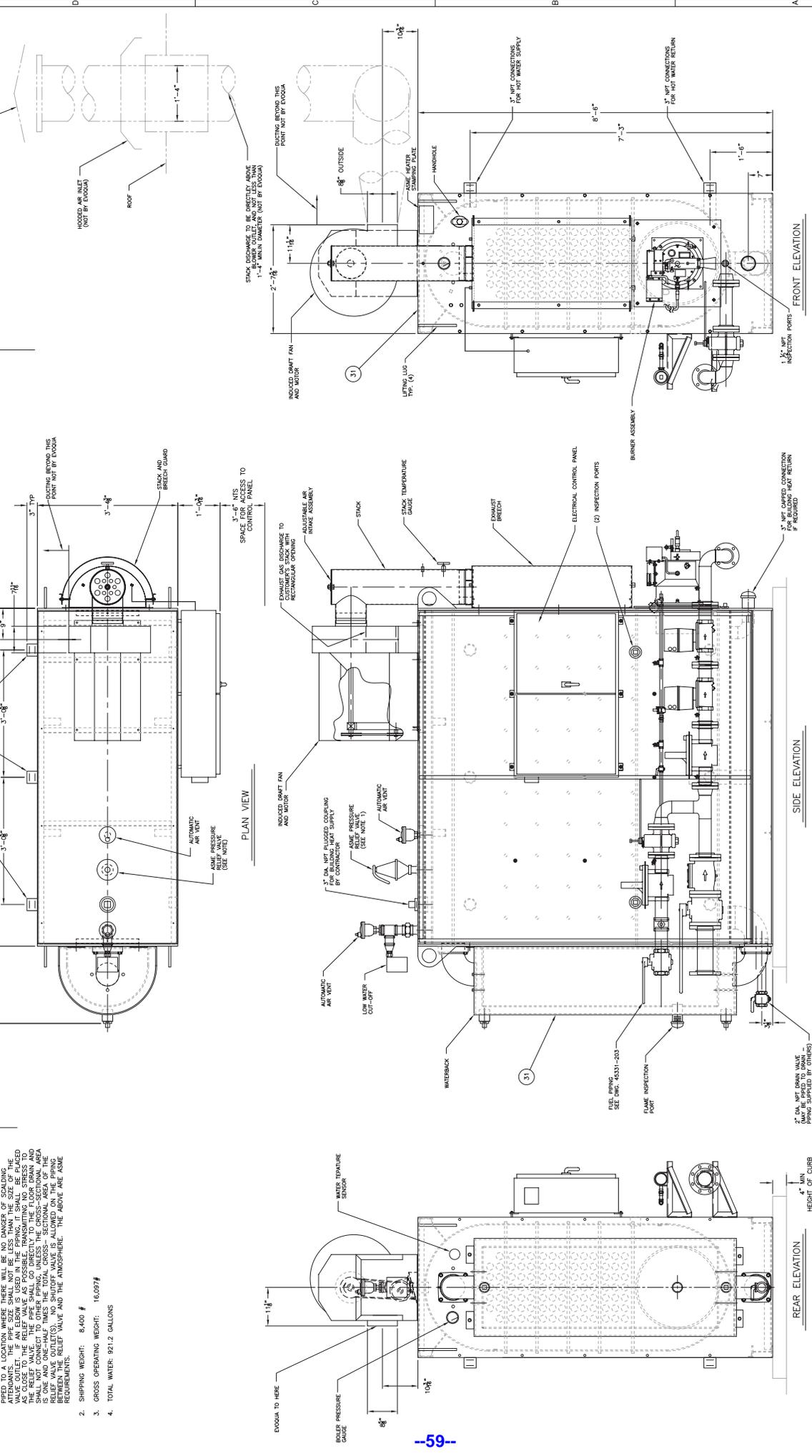
8'-11" 3" NPT CONNECTION FOR HOT WATER SUPPLY & RETURN

8'-9" NTS SPACE FOR CLEANING &/OR REMOVING FIRE TUBES AT EITHER END

HOODED DISCHARGE STACK AT EITHER END (NOT BY EVOQUA)

HOODED AIR INLET (NOT BY EVOQUA)

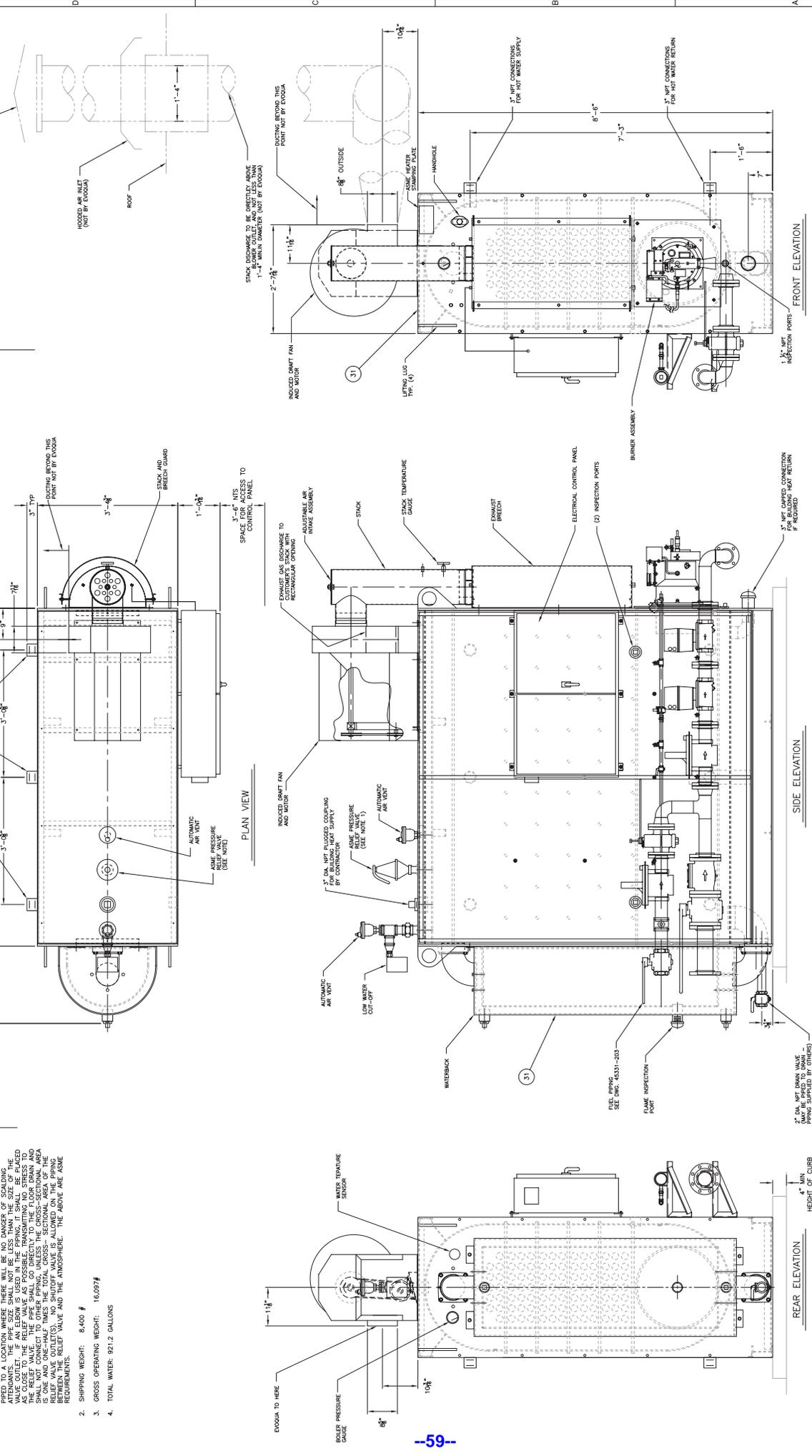
ROOF



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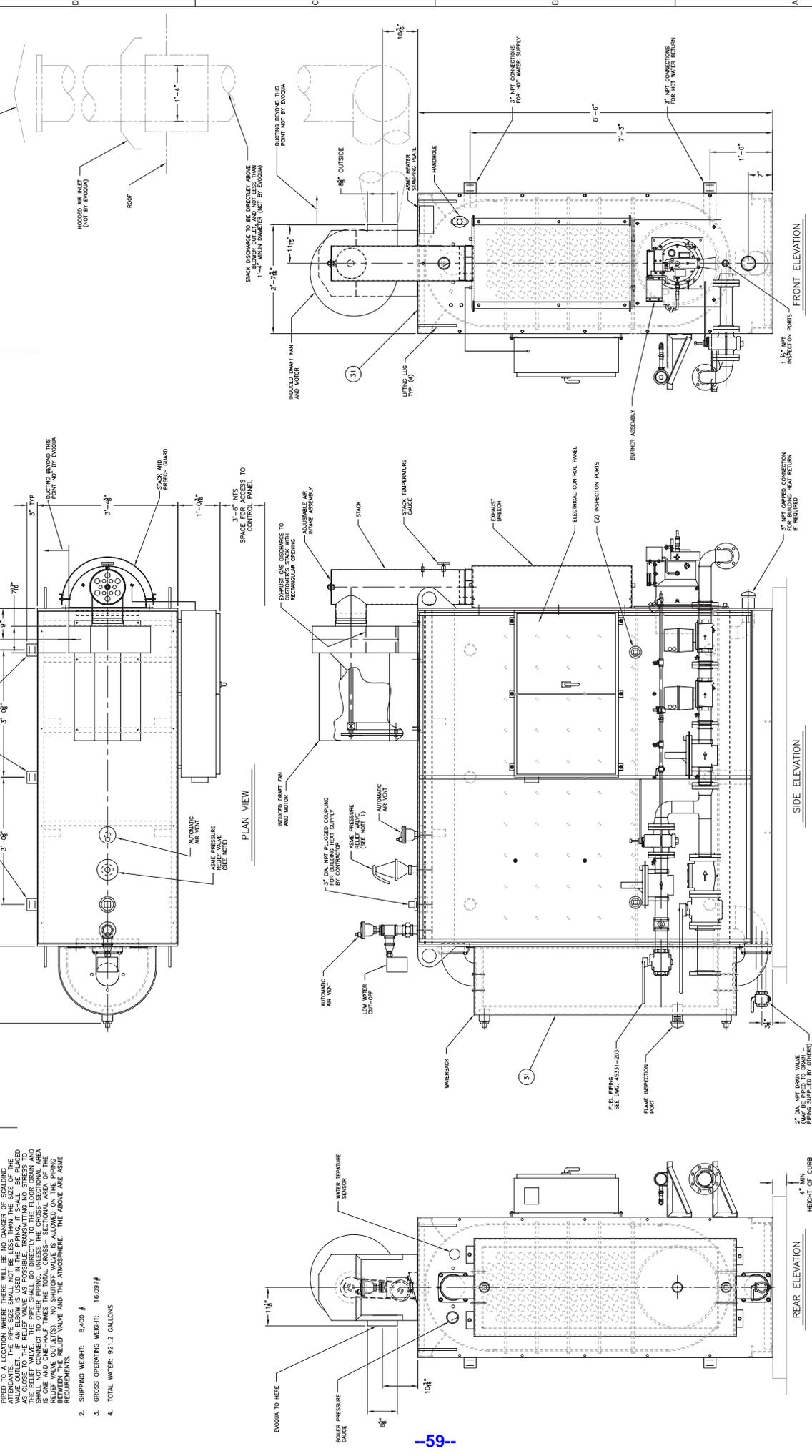
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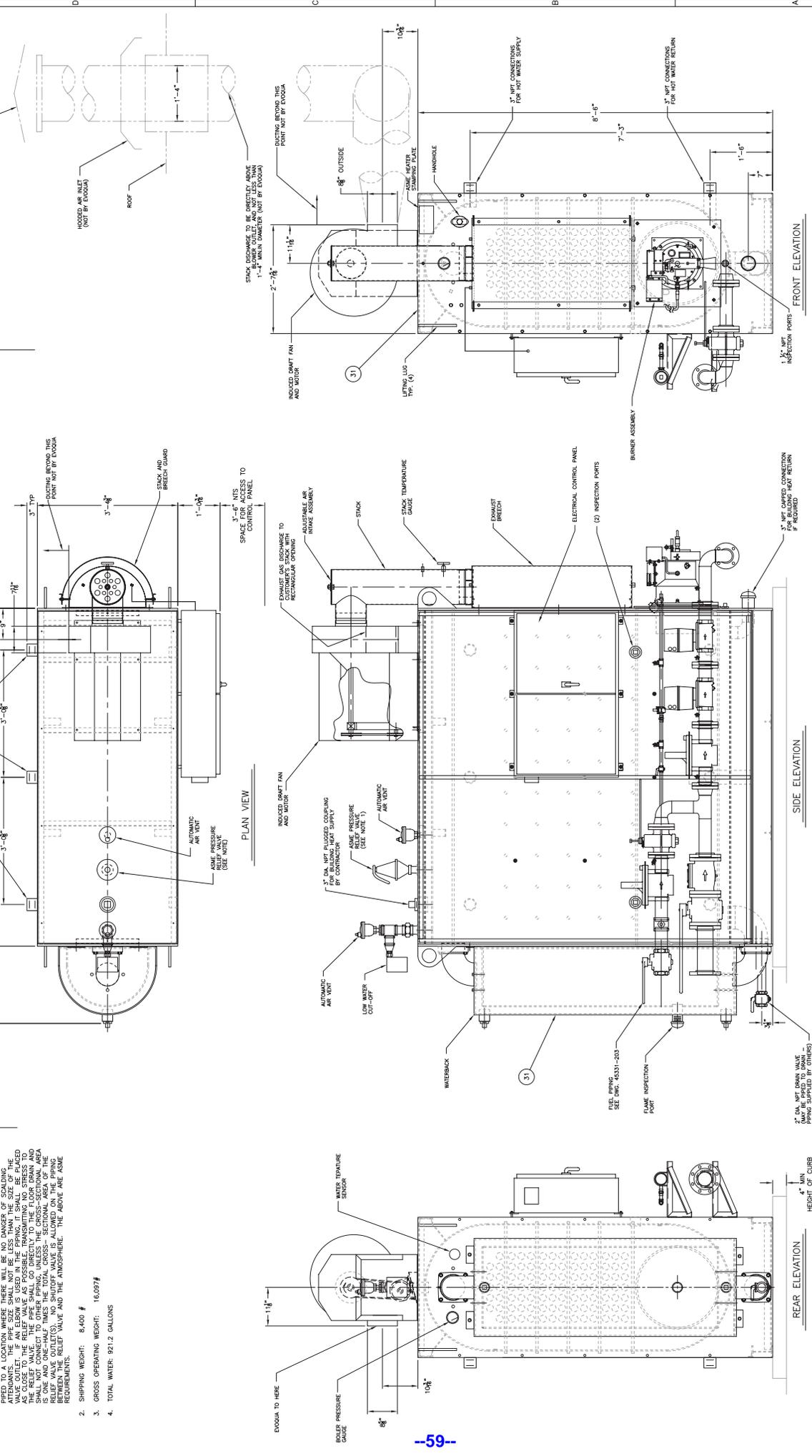
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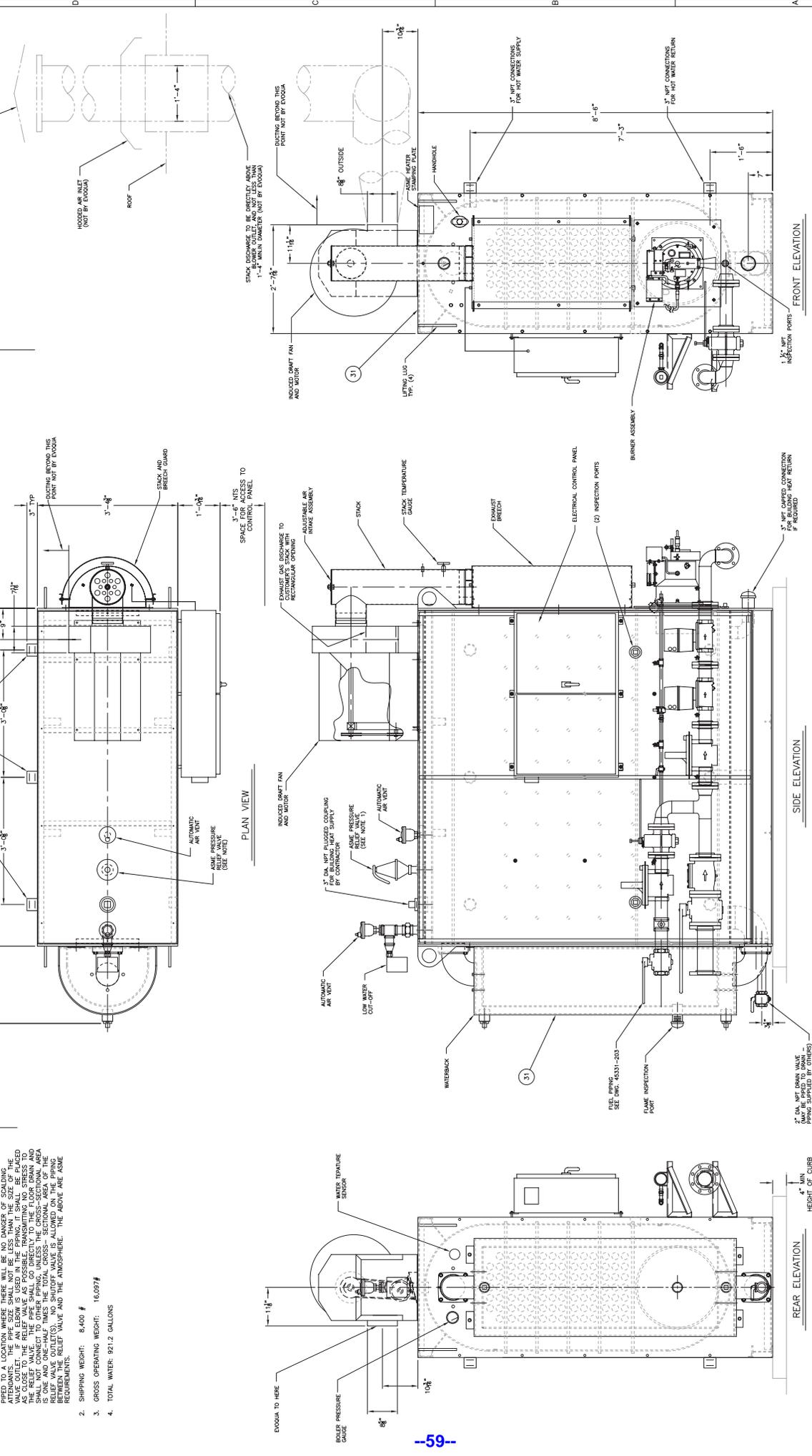
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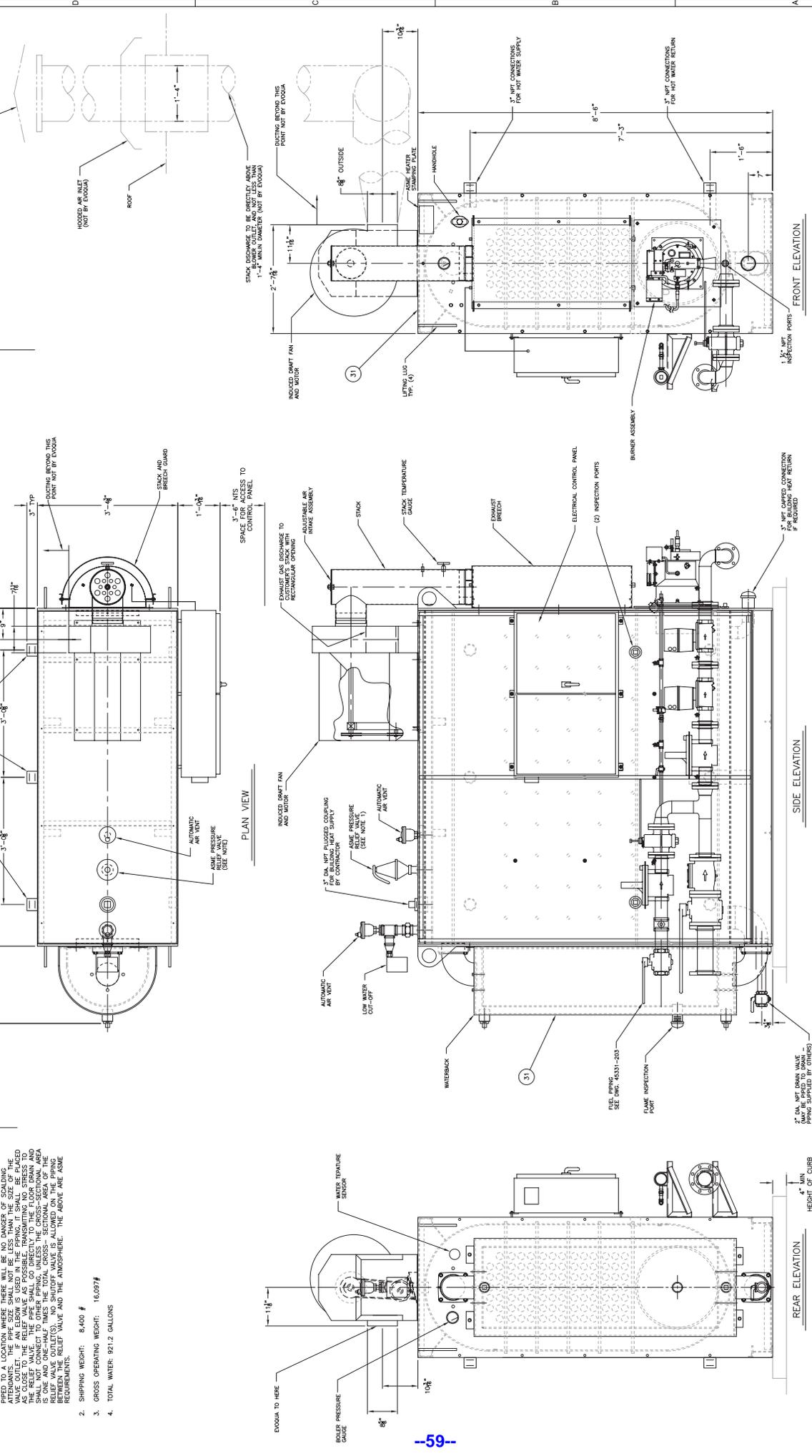
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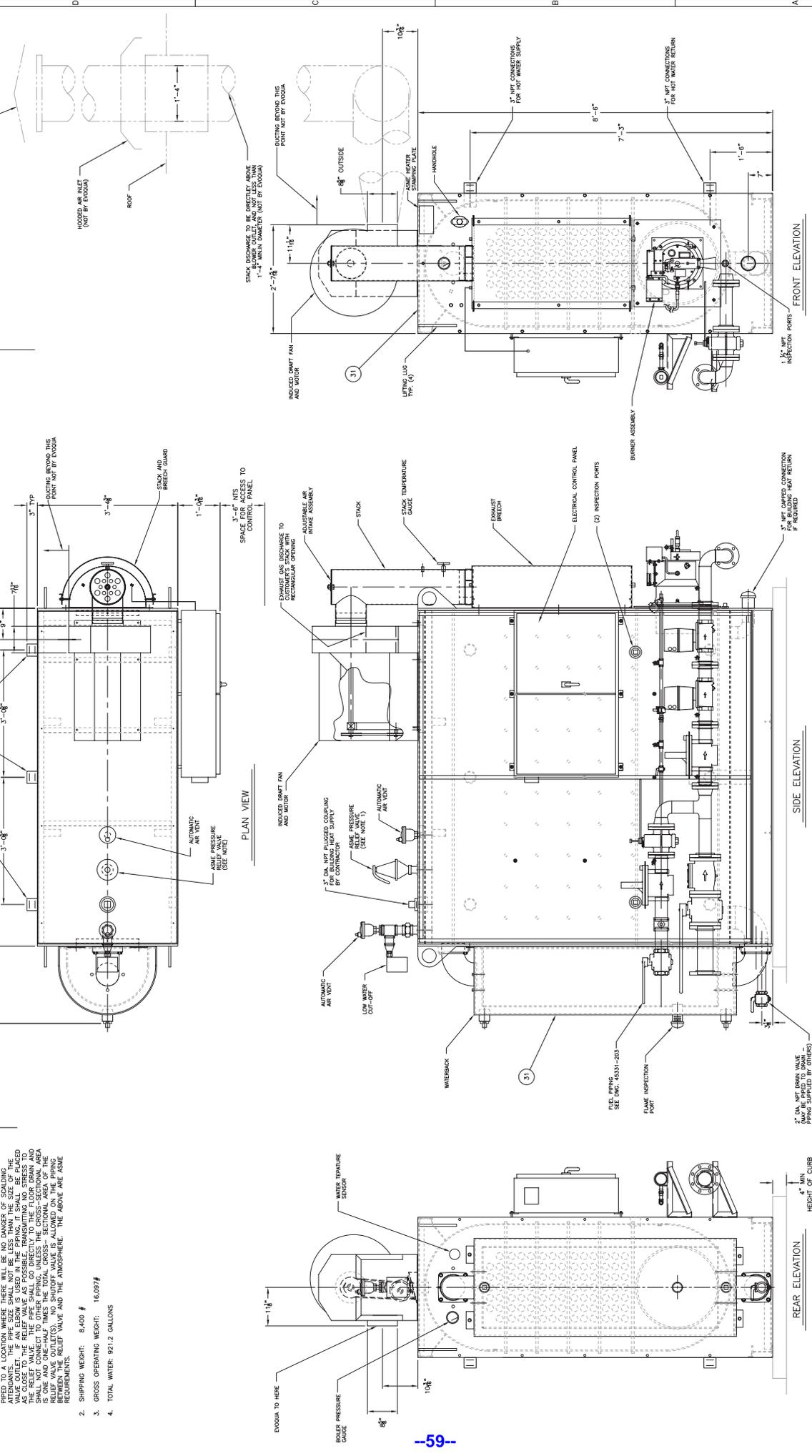
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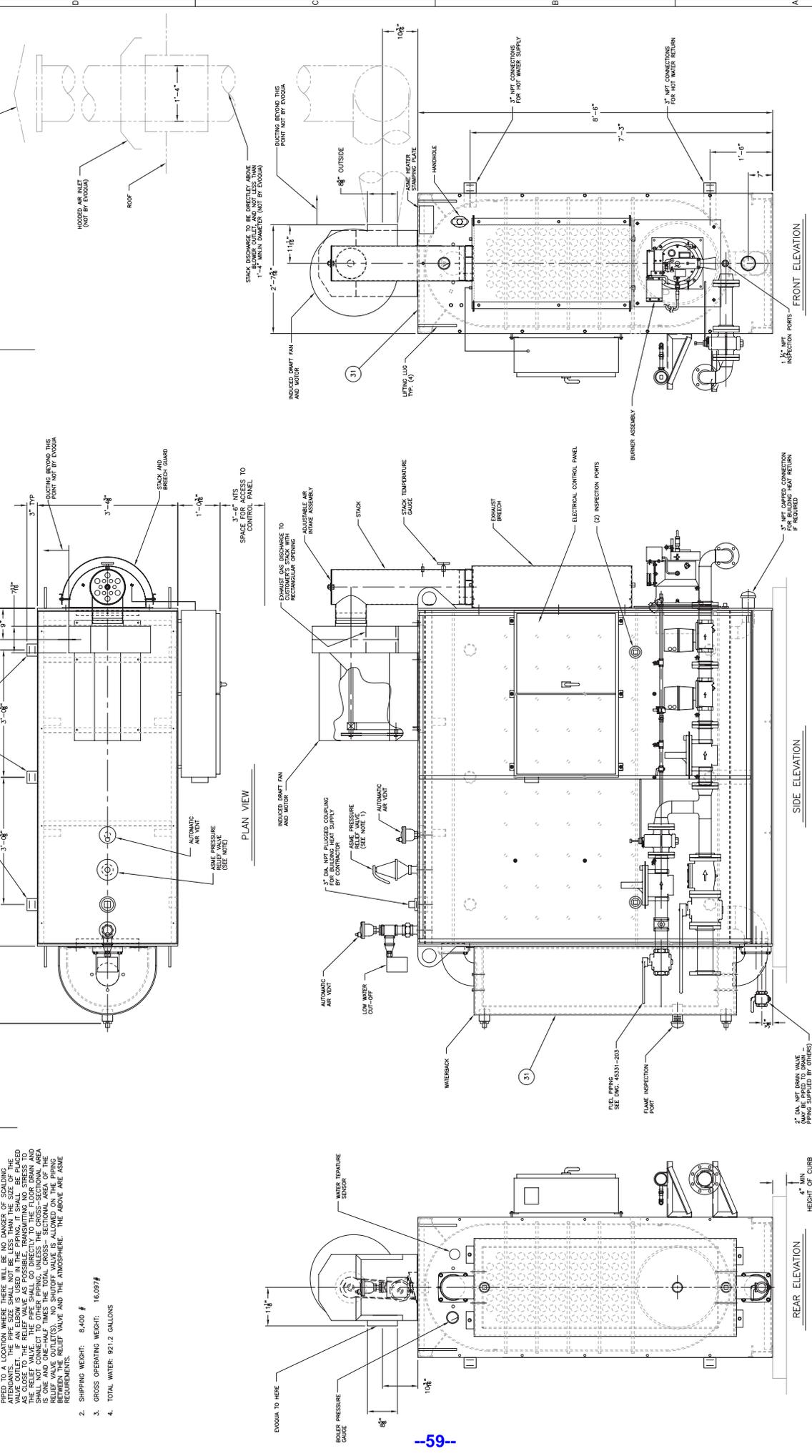
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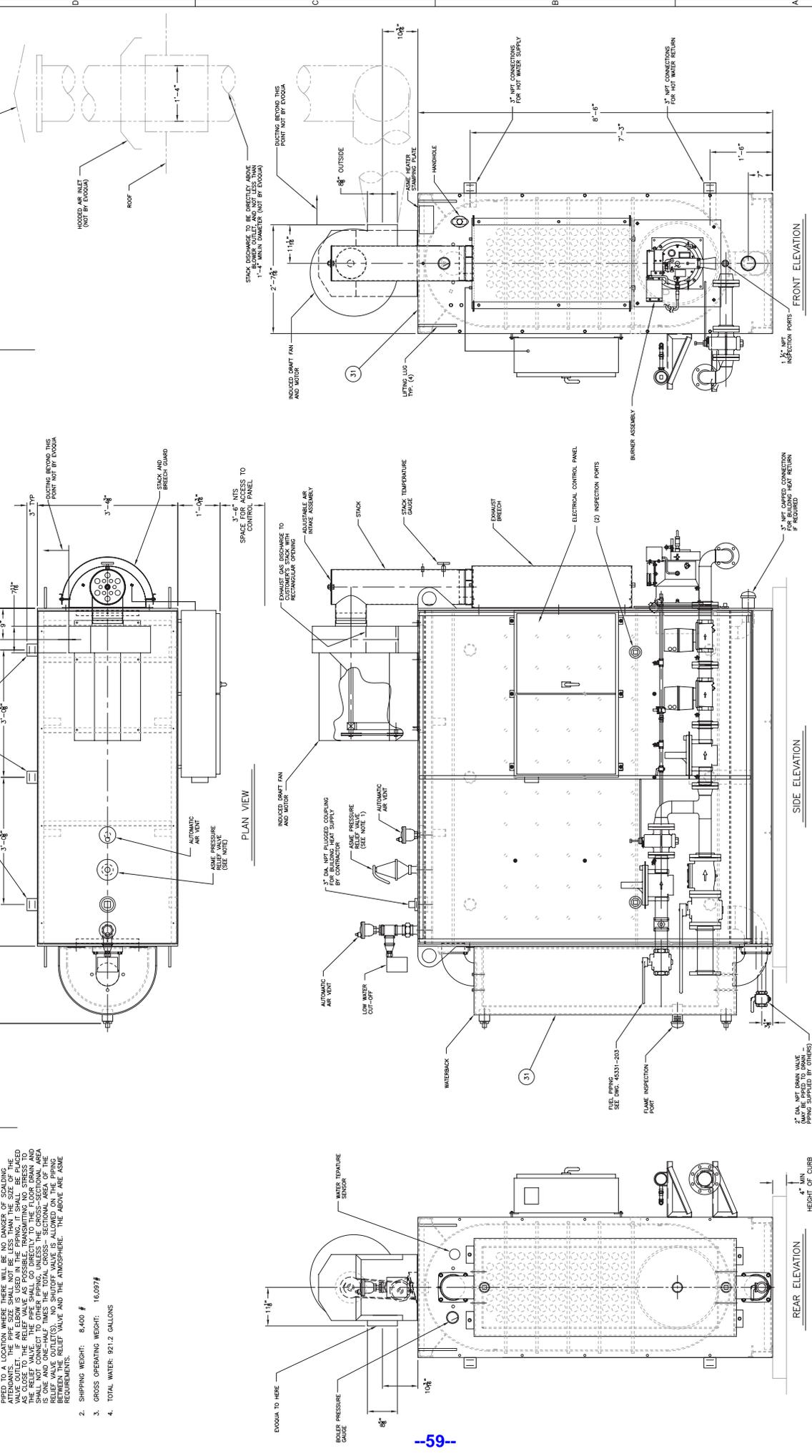
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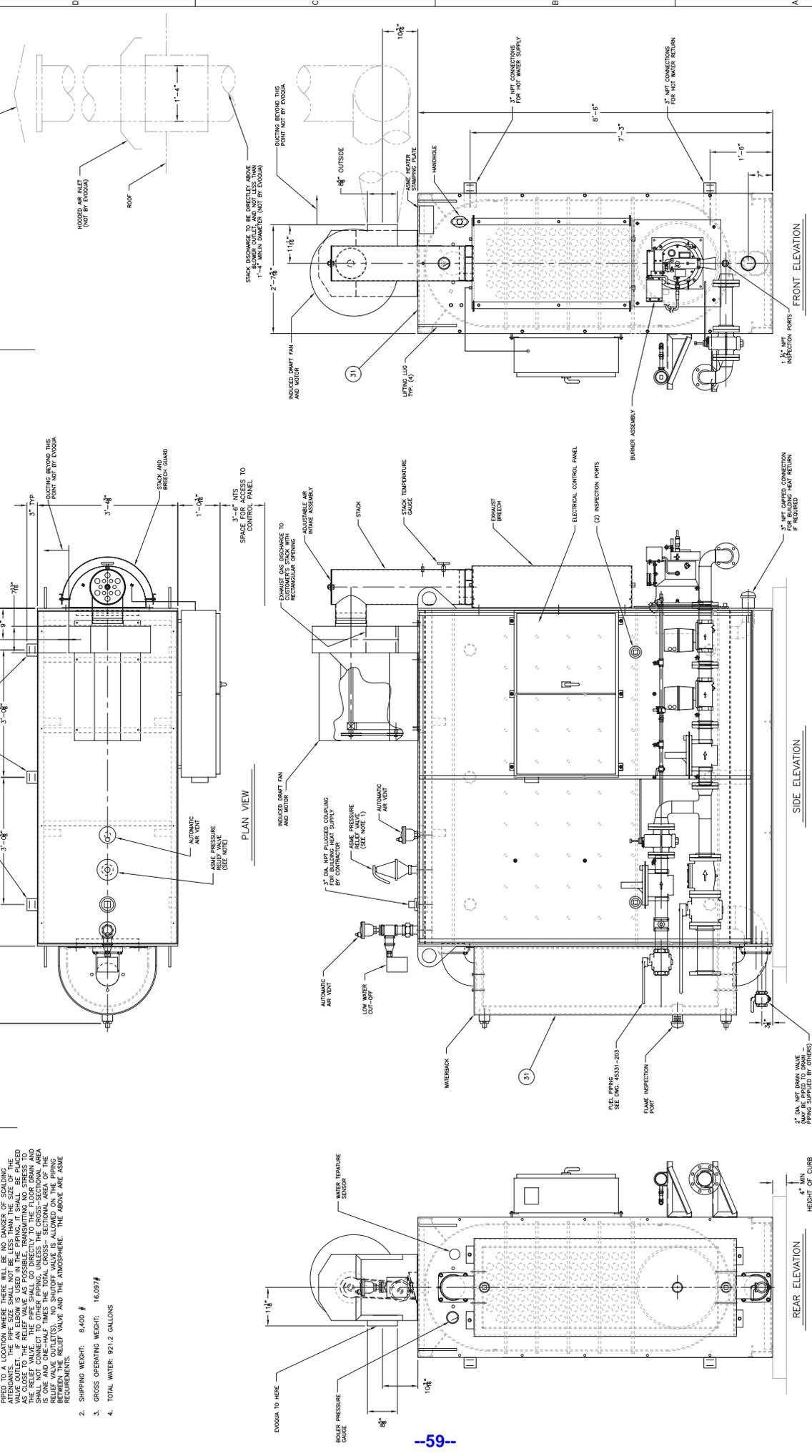
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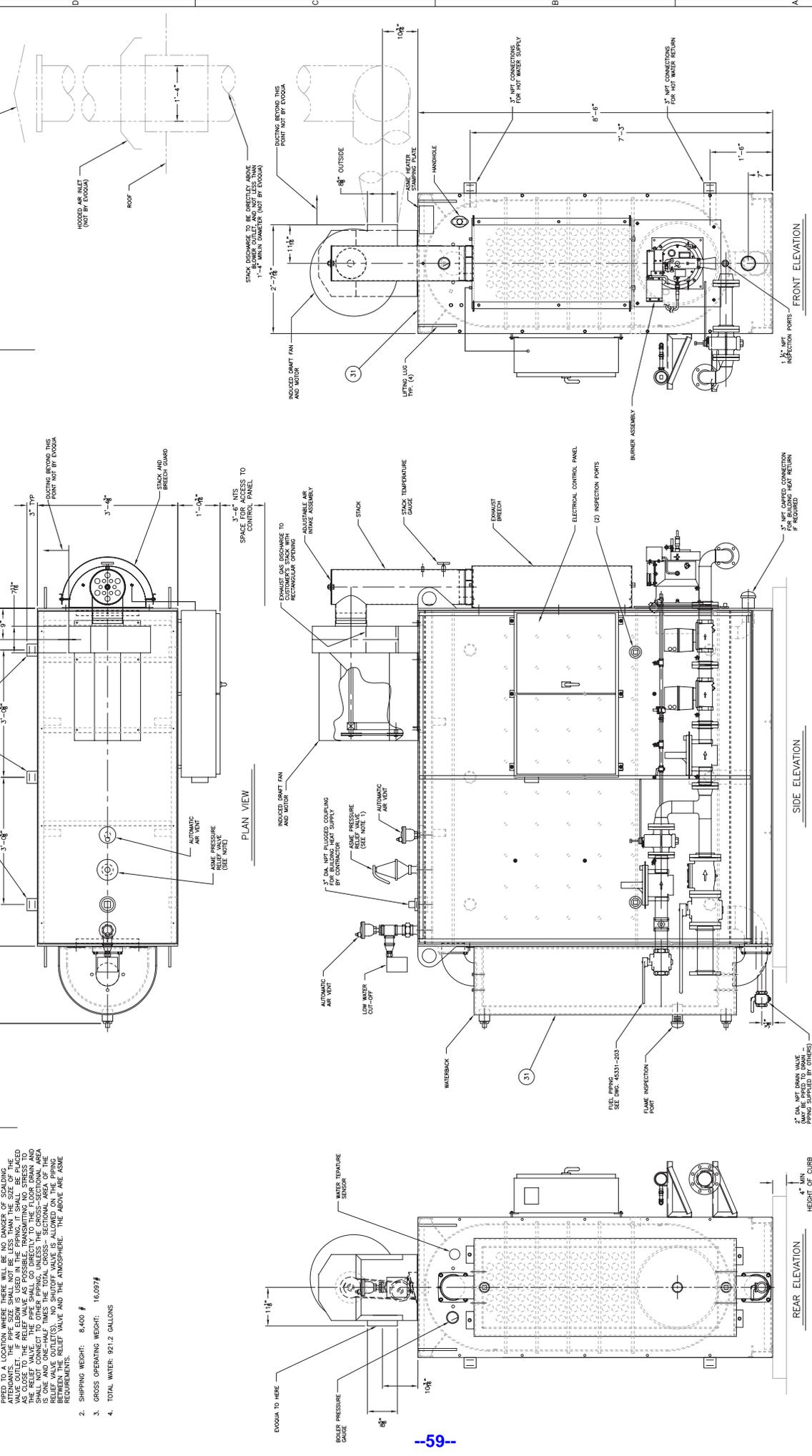
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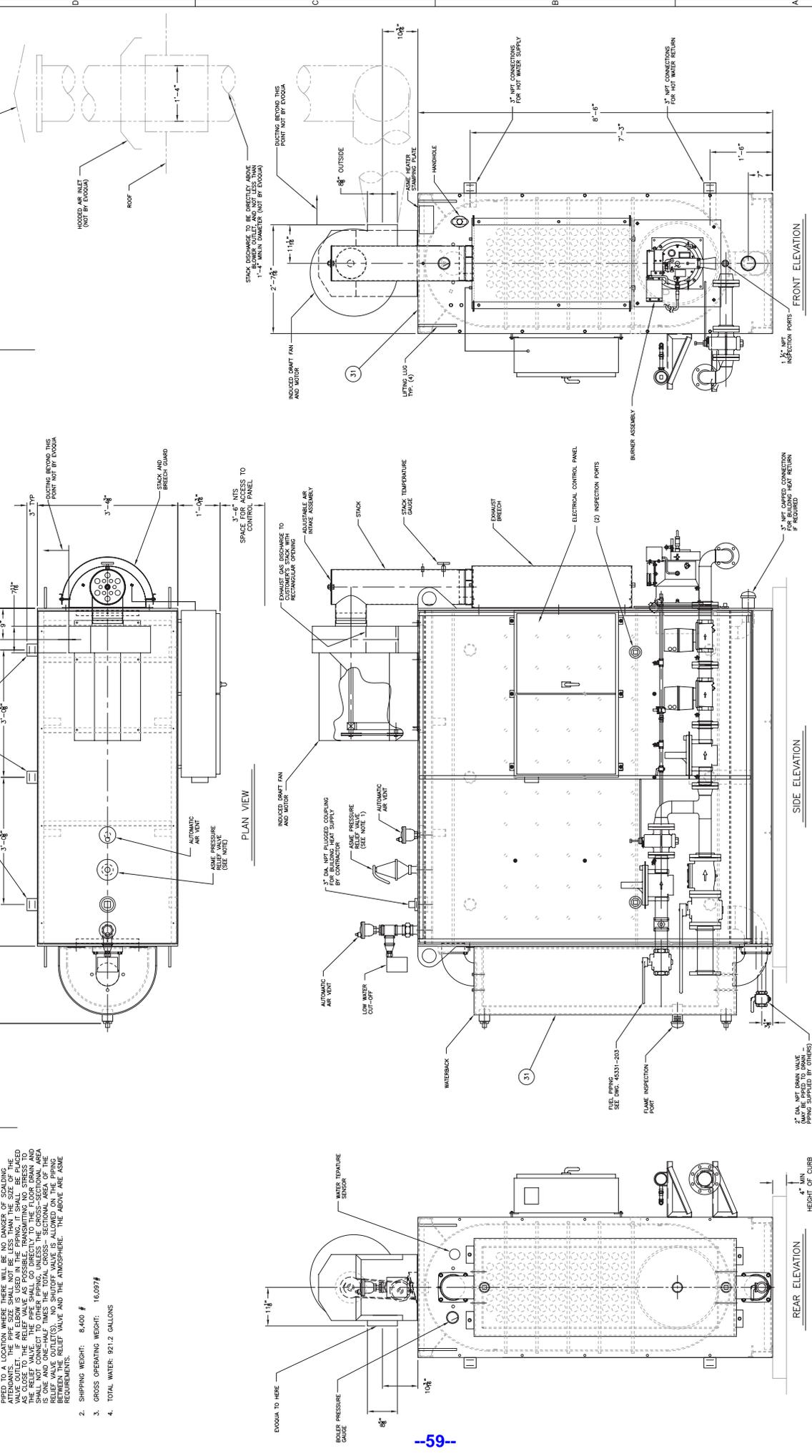
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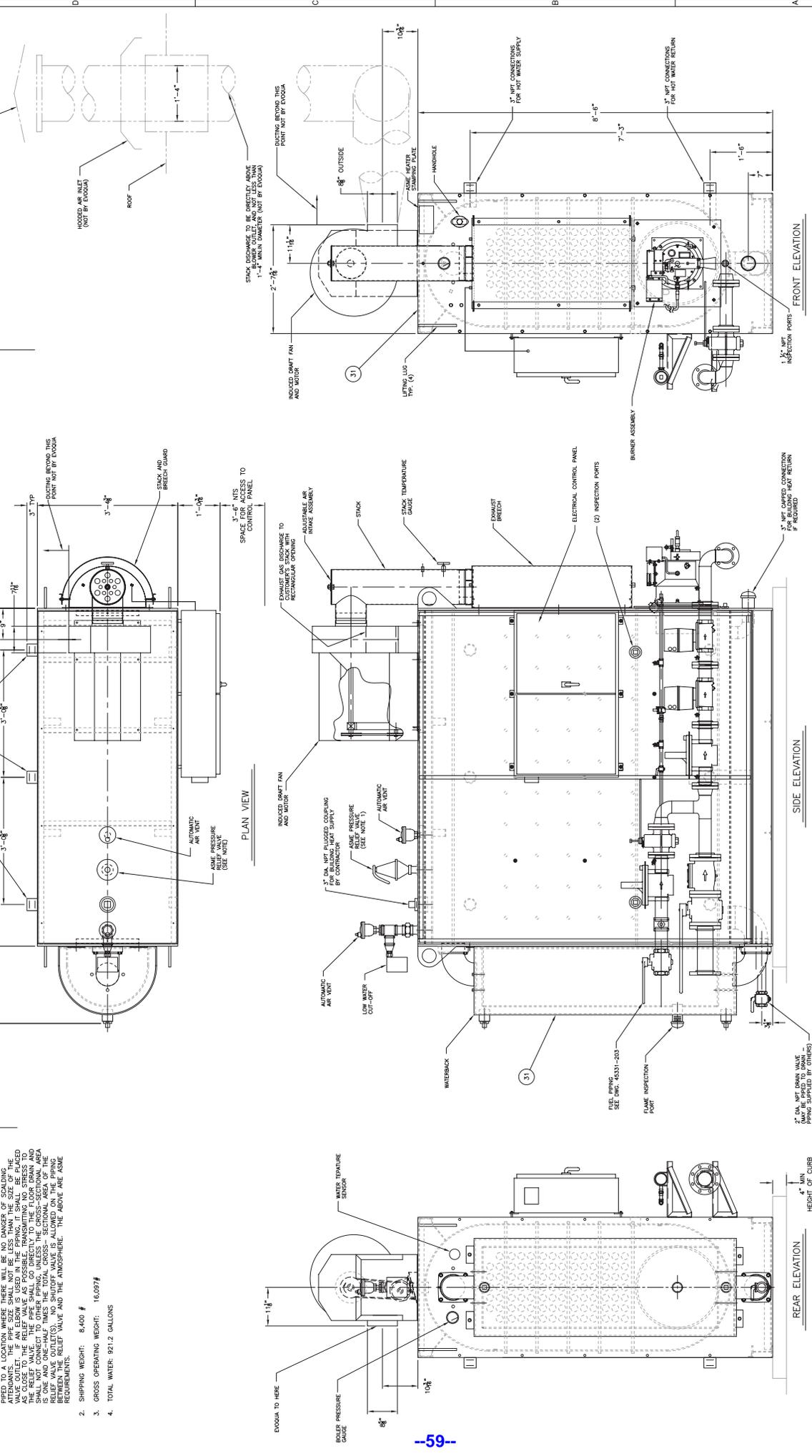
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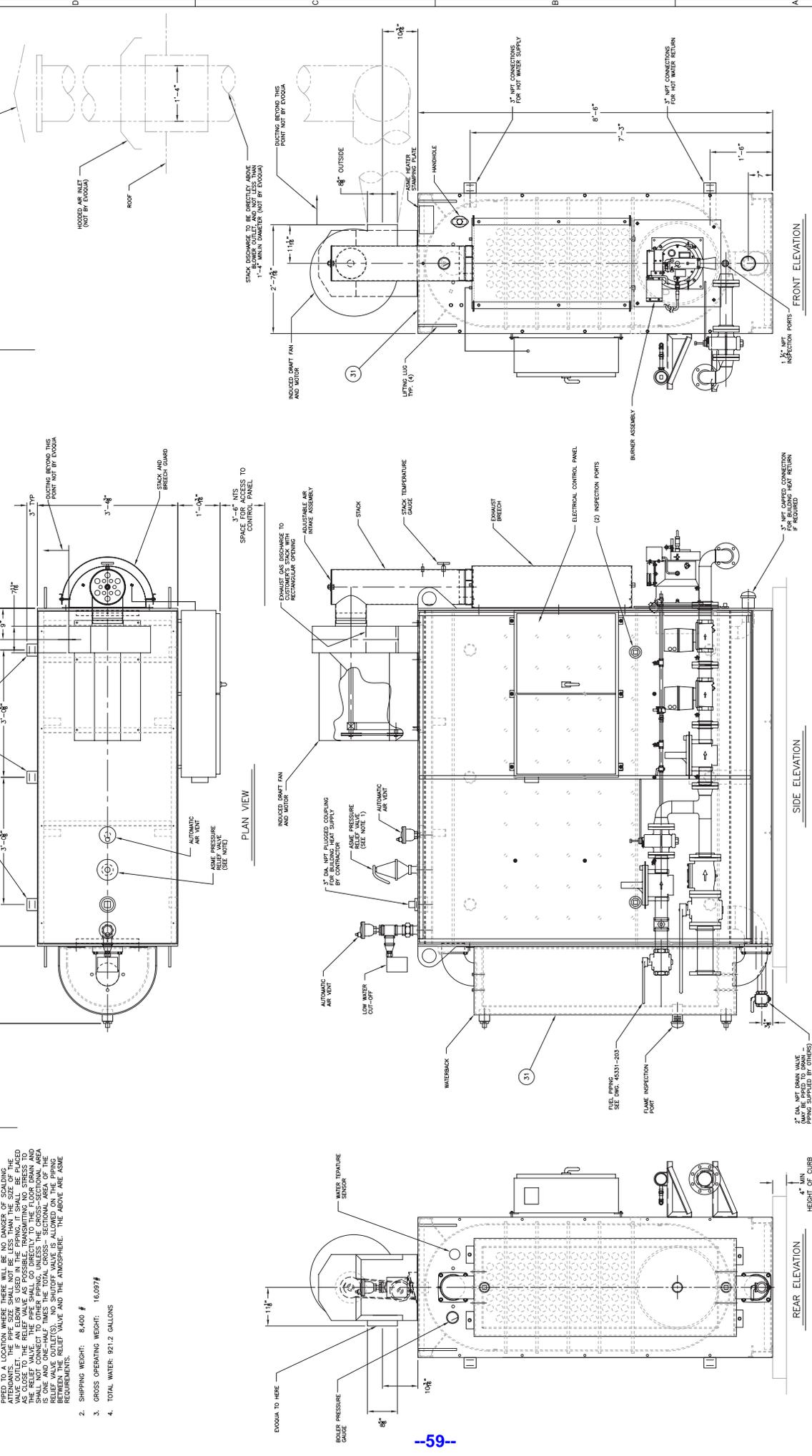
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HOODED AIR INLET (NOT BY EVOQUA)

ROOF



HOODED DISCHARGE STACK AT EITHER END (NOT BY EVOQUA)

HOODED AIR INLET (NOT BY EVOQUA)

ROOF

ROOF

ROOF

Attachment M
Air Pollution Control Device Sheet
 (FLARE SYSTEM)

Control Device ID No. (must match Emission Units Table):

Equipment Information

1. Manufacturer: Varec Model No. 244 WL, 6"	2. Method: <input checked="" type="checkbox"/> Elevated flare <input type="checkbox"/> Ground flare <input type="checkbox"/> Other Describe
3. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.	
4. Method of system used: <input type="checkbox"/> Steam-assisted <input type="checkbox"/> Air-assisted <input type="checkbox"/> Pressure-assisted <input checked="" type="checkbox"/> Non-assisted	
5. Maximum capacity of flare: <div style="text-align: right;">scf/min</div> <div style="text-align: right;">9,520</div> <div style="text-align: right;">scf/hr</div>	6. Dimensions of stack: <div style="text-align: right;">Diameter 6" ft.</div> <div style="text-align: right;">Height 10.7 ft.</div>
7. Estimated combustion efficiency: (Waste gas destruction efficiency) Estimated: 90 % Minimum guaranteed: N/A %	8. Fuel used in burners: <input checked="" type="checkbox"/> Natural Gas <input type="checkbox"/> Fuel Oil, Number <input type="checkbox"/> Other, Specify:
9. Number of burners: 1 Rating: N/A BTU/hr	11. Describe method of controlling flame: Thermocouple.
10. Will preheat be used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
12. Flare height: 128 inches	14. Natural gas flow rate to flare pilot flame per pilot light: <div style="text-align: right;">scf/min</div> <div style="text-align: right;">Approximately 100 at 10" WC pressure scf/hr</div>
13. Flare tip inside diameter: 6.031 inches	16. Will automatic re-ignition be used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
15. Number of pilot lights: 1 natural gas at 10" WC pressure <div style="text-align: right;">Total 108,150 BTU/hr</div>	
17. If automatic re-ignition will be used, describe the method: It utilizes a patented pilot ignition system that mixes pilot gas and air at ground level to provide a robust, high temperature pilot. The pilot is ignited away from the flare stack with a spark plug. This reduces wear and tear and allows routine maintenance to be carried out without exposing the operator to high temperatures. The design of the pilot system is such that the 244W is not affected by fluctuations in waste gas flow or heat content. A shielded thermocouple provides reliable detection of the pilot.	
18. Is pilot flame equipped with a monitor? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, what type? <input checked="" type="checkbox"/> Thermocouple <input type="checkbox"/> Infra-Red <input type="checkbox"/> Ultra Violet <input type="checkbox"/> Camera with monitoring control room <input type="checkbox"/> Other, Describe:	
19. Hours of unit operation per year: Variable based on gas production and boiler utilization.	

Steam Injection

20. Will steam injection be used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	21. Steam pressure Not Applicable PSIG Minimum Expected: Design Maximum:
22. Total Steam flow rate: Not Applicable LB/hr	23. Temperature: Not Applicable °F
24. Velocity Not Applicable ft/sec	25. Number of jet streams Not Applicable
26. Diameter of steam jets: Not Applicable in	27. Design basis for steam injected: Not Applicable LB steam/LB hydrocarbon
28. How will steam flow be controlled if steam injection is used? Not Applicable	

Characteristics of the Waste Gas Stream to be Burned

29.	Name	Quantity Grains of H ₂ S/100 ft ³	Quantity (LB/hr, ft ³ /hr, etc)	Source of Material
	Methane	60%-65% of Total	3,600-3,900 ft ³ /hr	Digester Gas
	Carbon Dioxide	35%-40% of Total	2,100-2,400 ft ³ /hr	Digester Gas
30. Estimate total combustible to flare:		6,048 ACF/hr	LB/hr or ACF/hr	
(Maximum mass flow rate of waste gas)		100	scfm	
31. Estimated total flow rate to flare including materials to be burned, carrier gases, auxiliary fuel, etc.:				
6,048 ACF/hr		LB/hr or ACF/hr		
32. Give composition of carrier gases: Not Applicable				
33. Temperature of emission stream: 95 °F		34. Identify and describe all auxiliary fuels to be burned. None.		
Heating value of emission stream: 650 BTU/ft ³				
Mean molecular weight of emission stream: MW = 27.228 lb/lb-mole				
35. Temperature of flare gas: 95 °F		36. Flare gas flow rate: 100 scf/min		
37. Flare gas heat content: 650 BTU/ft ³		38. Flare gas exit velocity: 9.324 fps		
39. Maximum rate during emergency for one major piece of equipment or process unit: 100 scf/min				
40. Maximum rate during emergency for one major piece of equipment or process unit: 65,000 BTU/min				
41. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification): No gas conditioning takes place.				
42. Describe the collection material disposal system: The gas is produced inside the floating covers of the Primary Anaerobic Digesters and stored in the Secondary Anaerobic Digesters. The gas goes through foam suppression system and when pressures exceed a preset switch point, gas is sent to the flare and the flare destroys harmful components.				
43. Have you included Flare Control Device in the Emissions Points Data Summary Sheet? Yes				

44. 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.

<p>MONITORING: Emissions monitoring is limited to visual inspection of flare and as recommended by manufacturer.</p>	<p>RECORDKEEPING: Keep records of maintenance practices prescribed by manufacturer.</p>
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<p>REPORTING: No emissions reporting is proposed.</p>	<p>TESTING: No emissions testing is proposed.</p>
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<p>MONITORING:</p>	<p>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 or air control device.</p>
<p>RECORDKEEPING:</p>	<p>Please describe the proposed recordkeeping that will accompany the monitoring.</p>
<p>REPORTING:</p>	<p>Please describe any proposed emissions testing for this process equipment on air pollution control device.</p>
<p>TESTING:</p>	<p>Please describe any proposed emissions testing for this process equipment on air pollution control device.</p>

45. Manufacturer's Guaranteed Capture Efficiency for each air pollutant.

None

46. Manufacturer's Guaranteed Control Efficiency for each air pollutant.

None

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

The flare provided is an open-type of candle-stick flare. Please refer to enclosed flare height calculations.

SAFE OPERATING HEIGHT CALCULATIONS

Design Criteria				
Q	105 scfm	Flow Rate - Maximum gas production		
T	95 Deg. F	Gas Temperature		
D	8 Inches	Flare Diameter		
H	650 Btu/cu. Ft.	Heat Content - Must be based on 60.18 F (3)		
L	19.33 Ft	Burner Tip above Ground Level		
	10.66667 Ft	Burner Standard height		
	8.67 FT	Additional height from ground to base of flare.	Total height of the concrete pedestal shown on Section 2, Drawing 66-ASME1.01.	
Gas Exit Velocity				
V	5.24475 ft/s	Part 60.18 C.3.ii and C.4.iii	Vmax 47.07076 m/s 154.4316 fps	
			BTU 24.22621 MJ/scm	MUST NOT EXCEED THIS
			(metric)	VALUE TO MEET PART 60.18,
Flame Length				PARA. F(5)
Lf	10.4546 Feet	6.291739	LOG(Vmax) = (Ht + 28.8)/31.7 equation	
Flame height center under wind conditions				
Yc	0.52273			
Radiation Level @ 6 feet above Ground (assuming average height of an operator is 6 foot)				
K	248.0842	Should be below 1500		
		Change the burner tip stack height above ground level until K value is below 1500 BTU/h-ft2		

60.18 F (3)
 (3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$(3) \sum_{i=1}^n C_i H_{T_i}$$

the gas being combusted in a flare shall be calculated using the following equation

$$H_T = K \sum_{i=1}^n C_i H_{T_i}$$

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$$K = \left(\frac{1}{ppm} \right) \left(\frac{g \text{ mole}}{scm} \right) \left(\frac{MJ}{Kcal} \right) \left(\frac{g \text{ mole}}{scm} \right)$$

where:
 H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \text{Constant} \cdot \left(\frac{1}{ppm} \right) \left(\frac{g \text{ mole}}{scm} \right) \left(\frac{MJ}{Kcal} \right)$$

where the standard temperature for $\left(\frac{g \text{ mole}}{scm} \right)$ is 20°C;

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f) (3) of this section.

60.18 C.4.iii

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

F.4

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

APPLICATION FOR NSR PERMIT
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV
ATTACHMENT N - Calculations

1. Unit Descriptions

- Unit 1: Generator 1, 2000 KW Diesel Generator, Existing - Permit G60-C051
Caterpillar Internal Combustion Generator, Model 3516B
Installed 2007. Engine is 3286 BHP at full load.
- Unit 2: Generator 2, 400 KW Diesel Generator, New
Caterpillar Internal Combustion Generator, Model C15
Scheduled to be installed in 2015. Engine is 540 BHP at full load.
- Unit 3: Boiler 1, 2 MMBtu/hr Biogas/Natural Gas Fired Boiler, Existing
Evoqua Dual Fuel Boiler, Model 2000B
Installed in 1991.
- Unit 4: Boiler 2, 2 MMBtu/hr Biogas/Natural Gas Fired Boiler, New
Evoqua Dual Fuel Boiler, Model 2000B
Scheduled to be installed in 2015.
- Unit 5: Waste Gas Flare, 9,520 scf/hr burning capacity, New
Varec Model 244 WL, 6"
Scheduled to be installed in 2015.

2. Emission Factors

- Unit 1: This previously permitted generator had emission factors included in its calculations. Those factors will be used to calculate the potential to emit.
- Unit 2: Emission factors for this internal combustion engine are derived from AP-42, Tables 3.3-1 and 3.3-2.
- Unit 3: AP-42 classifies this unit as a small wall-fired boiler because it has less than 100 MMBtu/hr heat input capacity. EPA estimated emission factors for the combustion of digester gas are not currently available. Typical biogas consists of methane (60%-65%) and carbon dioxide (35%-40%) with trace levels of other gases such as hydrogen, carbon monoxide, nitrogen, and hydrogen sulfide. The relative percentages of these constituents depends on the feed material and process management.

With the exception of sulfur dioxide, we will base emission factors for biogas on AP-42 emission factors for Natural Gas combustion (Tables 1.4-1, 1.4-2, and 1.4-3). Per AP-42 instructions, we will adjust the emission factor for the heat content of typical municipal WWTP biogas (650 MMBtu/MMcf). Assume natural gas has a heat content of 1,020 MMBtu/MMcf as described in AP-42. Use the greater of the two to calculate the potential to emit.

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Sulfur dioxide emissions from biogas combustion depend on the sulfur content of the fuel. Biogas speciation testing was completed and the test resulted in a hydrogen sulfide content of 4,100 ppbV.

$$EF_{SO_2} = \frac{F_{H_2S} * CF_{AP42} * \frac{WF_{S_{H_2S}}}{WF_{S_{SO_2}}}}{HC_{Biogas}} = 1.05 \times 10^{-3} \frac{lb SO_2}{MMBtu}$$

Where EF_{SO_2} = Emission Factor for Sulfur Dioxide $\left(\frac{lb SO_2}{MMBtu Input}\right)$
 F_{H_2S} = Hydrogen Sulfide Content = 4.1 ppm
 CF_{AP42} = AP-42 conversion factor at standard temperature and pressure = $0.0885 \frac{lb/MMcf}{ppm}$
 $WF_{S_{H_2S}}$ = Molar weight fraction = $0.9408 \frac{lb S}{lb H_2S}$
 $WF_{S_{SO_2}}$ = Molar weight fraction = $0.5000 \frac{lb S}{lb SO_2}$
 HC_{Biogas} = Heat content of biogas = $650 \frac{MMBtu}{MMcf}$

Unit 4: This unit uses the same emission factors as Unit 3.

Unit 5: AP-42 does not list emission factors for flares burning biogas or natural gas. We will use emission factors developed for Unit 3 to approximate potential emission from the flare.

Unit ID	Fuel	PM	PM10	SO2	NOx	VOC	CO	HAP
Unit 2	Diesel	0.31	0.31	0.29	4.41	0.36	0.95	0.004
Unit 3/4	Natural Gas	0.007	0.007	0.0006	0.10	0.01	0.08	0.002
Unit 3/4	Biogas	0.012	0.012	0.001	0.15	0.01	0.13	0.003
Unit 5	Biogas	0.012	0.012	0.001	0.15	0.01	0.11	0.003

Table 1 Emission Factor Summary in lb/MMBtu and Comparison by Fuel

3. Potential To Emit

Unit 1: Use previously permitted calculations to reach potential to emit.

Unit 2: Since this unit is an emergency generator, use 500 operational hours to calculate the potential to emit as per EPA guidance (<http://www.epa.gov/ttn/caaa/t5/memoranda/emgen.pdf>).
 Heating Value of Diesel (From AP-42, Appendix A) = 0.137 MMBtu/gal
 Unit 2 Fuel Consumption @ Full Load = 31.9 gal/hr
 Unit 2 Fuel Input Rate = 4.370 MMBtu/Hr

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Units 3&4: For Potential To Emit calculations, both units will operate 8,760 hours/year. Use biogas emission factors as they are greater than natural gas for all constituents.
 Fuel Input Rate = Input Capacity = 2 MMBtu/hr

Unit 5: For Potential To Emit calculations, this unit will operate 8,760 hours/year. The manufacturer lists the maximum capacity of the flare as 9,520 cf/hr. The worst case scenario for emissions from the flare would be if the boilers were unavailable and all gas produced was routed to the flare. It is industry standard to say that gas production in a municipal WWTP digester that is operating at peak operational capacity is 12-18 cf of biogas produced per pound of volatile solids destroyed. The capacity of the digester is 12,600 pounds of volatile solids per day. On average, there is 64% volatile solids reduction as part of the digestion process. This results in 8,064 pounds of volatile solids destroyed and 96,768-145,152 cubic feet of gas produced.

Gas Production = 145,152 cf/day = 6,048 cf/hr

Biogas Heating Value = 650 Btu/cf

Fuel Input Rate = 3.931 MMBtu/hr

Unit ID	Fuel Input Rate	PM	PM10	SO2	NOx	VOC	CO	HAP
Unit 1		0.50	0.50	5.50	40.57	6.62	2.72	0.08
Unit 2	4.370	1.35	1.35	1.27	19.27	1.57	4.15	0.02
Unit 3	2.000	0.02	0.02	0.00	0.30	0.02	0.26	0.00
Unit 4	2.000	0.02	0.02	0.00	0.30	0.02	0.26	0.00
Unit 5	3.931	0.05	0.05	0.00	0.59	0.04	0.51	0.01

Table 2 Hourly Potential To Emit (pounds per hour)

Unit ID	Operation Hours/Yr	PM	PM10	SO2	NOx	VOC	CO	HAP
Unit 1	500	0.13	0.13	1.37	10.14	1.66	0.68	0.02
Unit 2	500	0.34	0.34	0.32	4.82	0.39	1.04	0.00
Unit 3	8,760	0.11	0.11	0.01	1.31	0.09	1.14	0.03
Unit 4	8,760	0.11	0.11	0.01	1.31	0.09	1.14	0.03
Unit 5	8,760	0.21	0.21	0.02	2.58	0.17	2.24	0.05
Total		0.90	0.90	1.73	20.16	2.40	6.24	0.13

Table 3 Annual Potential To Emit (tons per year)

APPLICATION FOR NSR PERMIT
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV

ATTACHMENT O - Monitoring, Recordkeeping, Reporting, and Testing Plans

For Units 1 and 2, Parkersburg Utility Board (PUB) recommends following the monitoring, recordkeeping, reporting, and testing plans as outlined General Permit G60.

For Units 3 and 4, PUB recommends monitoring boiler water temperature, stack temperature, and a visual inspection of plume opacity. PUB recommends following the manufacturer's O&M recommendation of flue test with a commercial grade direct reading flue gas analyzer annually in order to ensure proper combustion is taking place. PUB recommends keeping a record of all monitoring and testing. Maintain a boiler maintenance log. PUB recommends submittal of test results annually or bi-annually.

For Unit 5, PUB recommends to follow manufacturer recommended operation and maintenance instructions to ensure complete combustion of waste gas.

APPLICATION FOR NSR PERMIT
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV
ATTACHMENT P - Affidavit of Publication

At the time that the application was submitted, a Class I Legal Advertisement was placed in The Parkersburg News and Sentinel. The Affidavit of Publication will be submitted immediately upon receipt. Below is the content of the Legal Advertisement.

**AIR QUALITY PERMIT NOTICE
Notice of Application**

Notice is given that the Parkersburg Utility Board has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for an Construction Permit under 45 CSR 13 for a new boiler, flare, and emergency generator in addition to the existing boiler and emergency generator located at 125 Nineteenth Street, in the City of Parkersburg, Wood County, West Virginia. The latitude and longitude coordinates are: 39.2730 N, 81.5548 W.

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be:

<u>Potential Emissions</u>	<u>tons/yr</u>
NO _x	20.16
CO	6.24
VOC	2.40
SO ₂	1.73
PM ₁₀	0.90
Total HAPs	0.13

Startup of operation is planned to begin on or about the thirtieth day of March, 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 1227, during normal business hours.

Dated this the _____ day of _____, 2013.

By: Parkersburg Utility Board
Eric Bennett
General Manager
125 Nineteenth Street
Parkersburg, WV 26101-2596

APPLICATION FOR NSR PERMIT
19TH STREET WASTEWATER TREATMENT PLANT
PARKERSBURG UTILITY BOARD
PARKERSBURG, WV

APPLICATION FEE

As required by 45 CFR 22, all permit applications pursuant to 45 CSR 13 shall pay an application fee of \$1,000. In addition to this fee, an additional \$1,000 is assessed for a NSPS requirement review.

Total fee included with this application is \$2,000.

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This page is a placeholder for the check payable to WVDEP-Division of Air Quality for the
aforementioned application fee.