

**CLASS II ADMINISTRATIVE UPDATE TO
REGULATION 13 PERMIT R13-1863E
FOR THE
MOOREFIELD PREPARED FOODS PLANT**

Prepared for:

Pilgrim's Pride Corporation
214 South Main Street
Moorefield, West Virginia 26836

Prepared by:

Potesta & Associates, Inc.
7012 MacCorkle Avenue, S.E.
Charleston, West Virginia 25304
Phone: (304) 342-1400 Fax: (304) 343-9031
Email: potesta@potesta.com

Project No. 0101-16-0146-010

September 2016

POTESTA

TABLE OF CONTENTS

General Information.....	SECTIONS I - III
Business Certificate	ATTACHMENT A
Area Map	ATTACHMENT B
Installation and Start Up Schedule.....	ATTACHMENT C
Regulatory Discussion	ATTACHMENT D
Plot Plan.....	ATTACHMENT E
Detailed Process Flow Diagram.....	ATTACHMENT F
Process Description.....	ATTACHMENT G
Emission Units Table.....	ATTACHMENT I
Emission Points Data Summary Sheet.....	ATTACHMENT J
Emissions Unit Data Sheets.....	ATTACHMENT L
Supporting Emissions Calculations	ATTACHMENT N
Monitoring/Recordkeeping/Reporting/Testing Plans	ATTACHMENT O
Public Notice.....	ATTACHMENT P
Additional Equipment Information (Clayton Boiler Technical Specifications and Kemco Systems, Inc. Emission Factor Calculations)	APPENDIX

Attachments Not Applicable to this Application: H, K, M, Q, R and S.

SECTIONS I - III
GENERAL INFORMATION



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): Pilgrim's Pride Corporation		2. Federal Employer ID No. (FEIN): 751285071	
3. Name of facility (if different from above): Moorefield Prepared Foods Plant		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: 214 South Main Street Moorefield, West Virginia 26836		5B. Facility's present physical address: 214 South Main Street Moorefield, West Virginia 26836	
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: NA			
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: Own – 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.): Prepared Foods Plant		10. North American Industry Classification System (NAICS) code for the facility: 311615	
11A. DAQ Plant ID No. (for existing facilities only): 031-00010		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R13-1863E	

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

12A.

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

Take the Moorefield exit off of US 48 (Corridor H) at Moorefield, West Virginia. Take a left turn onto US 220 (Main Street) headed south. The plant is located adjacent to US 220 (South Main Street) in Moorefield.

12.B. New site address (if applicable): NA	12C. Nearest city or town: Moorefield	12D. County: Hardy
12.E. UTM Northing (KM): 4,325	12F. UTM Easting (KM): 675.7	12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility:
Addition of new cook line that includes a new boiler and water heater. Removal of equipment permitted but either never installed or out of service.

14A. Provide the date of anticipated installation or change: 12/05/2016 – If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen:	14B. Date of anticipated Start-Up if a permit is granted: 12/05/2016
--	---

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

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

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

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

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

Section II. Additional attachments and supporting documents.

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

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

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

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

23. Provide a **Process Description** as **Attachment G**.

Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

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

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H**.
 For chemical processes, provide a MSDS for each compound emitted to the air.

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

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

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

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

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

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

29. Check all applicable **Air Pollution Control Device Sheets** listed below: NA

<input type="checkbox"/> Absorption Systems	<input type="checkbox"/> Baghouse	<input type="checkbox"/> Flare
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System
<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)?
 YES NO
➤ If YES, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "*Precautionary Notice – Claims of Confidentiality*" guidance found in the *General Instructions* as **Attachment Q**.

Section III. Certification of Information

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

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

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

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

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

Certification of Truth, Accuracy, and Completeness

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

Compliance Certification

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

SIGNATURE _____

Dave Townsend

(Please use blue ink)

DATE: _____

9/9/16

(Please use blue ink)

35B. Printed name of signee: Dave Townsend

35C. Title: Vice President

35D. E-mail: dave.townsend@pilgrims.com

36E. Phone: (970) 347-5730

36F. FAX: Use Email

36A. Printed name of contact person (if different from above): Brian Wolfe

36B. Title: Maintenance Manager

36C. E-mail: brian.wolfe@pilgrims.com

36D. Phone: (304) 538-1432

36E. FAX: Use Email

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 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.

ATTACHMENT A
BUSINESS CERTIFICATE

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
PILGRIM'S PRIDE CORPORATION
1770 PROMONTORY CIR
GREELEY, CO 80634-9039

BUSINESS REGISTRATION ACCOUNT NUMBER: 2306-9994

This certificate is issued on: 02/10/2015

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

This certificate is not transferrable and must be displayed at the location for which issued

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

ATTACHMENT B

AREA MAP



DATE: August 2016

PROJECT NO. 0101-16-0146-010

MAPPING FOR VISUAL REPRESENTATION ONLY

**SITE LOCATION MAP
MOOREFIELD PREPARED FOODS PLANT
MOOREFIELD, HARDY COUNTY, WV**

NOT TO SCALE

ATTACHMENT C

INSTALLATION AND START UP SCHEDULE

ATTACHMENT C

INSTALLATION AND STARTUP SCHEDULE

Installation and startup of the new cook line with its associated boiler and water heater is anticipated for December 5, 2016 and following issuance of the permit.

ATTACHMENT D
REGULATORY DISCUSSION

ATTACHMENT D

REGULATORY DISCUSSION

The facility is required to comply with the requirements contained in the applicable provisions of the following regulations:

- A. 45CSR2 – “To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers”

Sets state imposed opacity and particulate matter mass emission standards for boilers. The facility must maintain compliance with the most stringent limit between the state rule, federal rule and source specific permit conditions.

- B. 45CSR7 – “To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations”

Sets state imposed opacity and particulate matter mass emission standards for boilers. The facility must maintain compliance with the most stringent limit between the state rule, federal rule and source specific permit conditions.

- C. 45CSR10 – “To Prevent and Control Air Pollution from the Emission of Sulfur Oxides”

Sets state imposed sulfur dioxide mass emission standard for boilers. The facility must maintain compliance with the most stringent limit between the state rule, federal rule and source specific permit conditions.

- D. 45CSR13 – “Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation”

Establishes criteria for permitting a modification to a stationary source of air pollution.

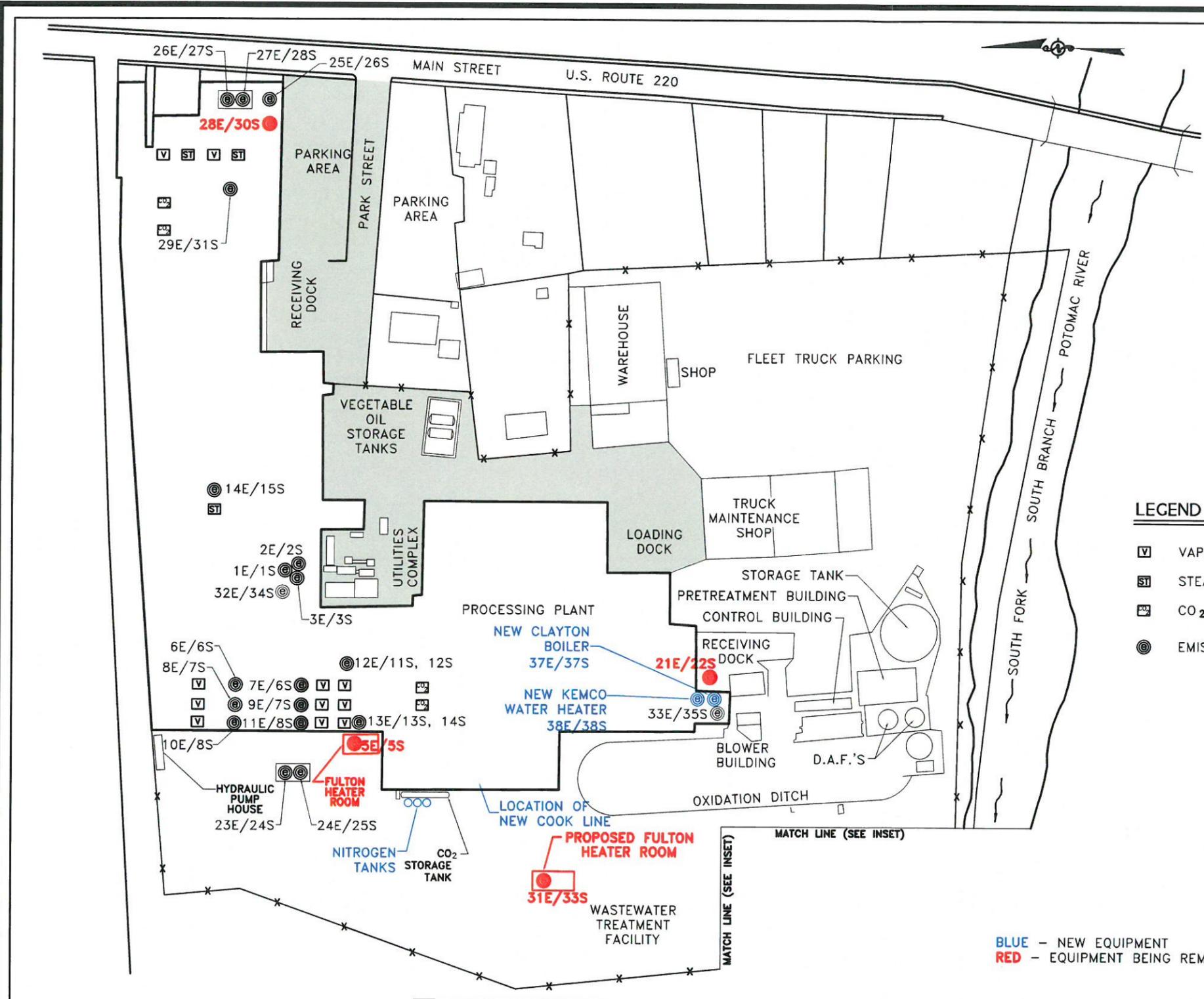
- E. 45CSR16 – “Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60”

West Virginia adopts and implements the federal requirements of the New Source Performance Standards (NSPS) program. This facility is subject to 40CFR60 Subpart Dc, “Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units”

ATTACHMENT E

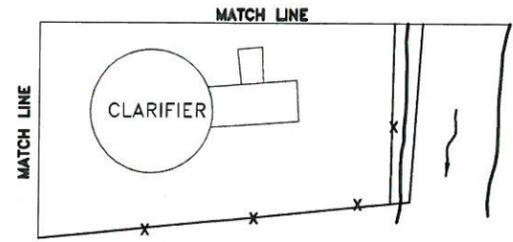
PLOT PLAN

XREF Files: IMAGE Files: Potesta Logo-C copy.jpg
 File: S:\C3D-Proj-YR\2016\16-0146-PILGRIMS PRIDE\B16-0146-01.dwg
 Plot Date/Time: Aug 03, 2016 - 1:16pm
 Plotted By: bereedy



LEGEND

- V VAPOR VENTS FROM STEIN OVENS
- ST STEAM VENTS FROM COOK LINES 1,2,&3
- M CO₂ VENT FROM MIXERS
- EMISSION POINTS

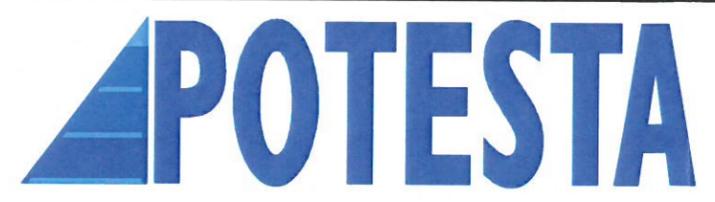


Emission Point ID	Emission Unit ID	Description
1E	1S	Clayton Steam Generator
2E	2S	Clayton Steam Generator
3E	3S	Clayton Steam Generator
5E	5S	Fulton Thermal Fluid Boiler
6E	6S	Oven w/ 4 Maxon Burners
7E	6S	
8E	7S	Oven w/ 4 Maxon Burners
9E	7S	
10E	8S	Oven w/ 4 Maxon Burners
11E	8S	
12E	11S, 12S	Stein Breeding Machine
13E	13S, 14S	Stein Breeding Machine
14E	15S	Drum Breeding Machine
21E	22S	Hurst Waste Boiler
23E	24S	Fulton Thermal Fluid Boiler
24E	25S	Fulton Thermal Fluid Boiler
25E	26S	Clayton Unit
26E	27S	Fulton Unit
27E	28S	Fulton Unit
28E	30S	Nothum Breeder
29E	31S	Fryer
31E	33S	Fulton Heater
32E	34S	Clayton Boiler
33E	35S	Clayton Boiler
34E	36S	Clayton Boiler
37E	37S	Clayton Boiler
38E	38S	Kemco Water Heater

■ BLUE - NEW EQUIPMENT
■ RED - EQUIPMENT BEING REMOVED

THIS MAP WAS GENERATED FROM A MAP PROVIDED TO POTESTA AND ASSOCIATES, INC. BY HESTER INDUSTRIES, INC. ORIGINAL MAP WAS PRODUCED BY TERRADON CORP. JANUARY, 1995

PROJECT: 16-0146 FILENAME: B16-0146-01

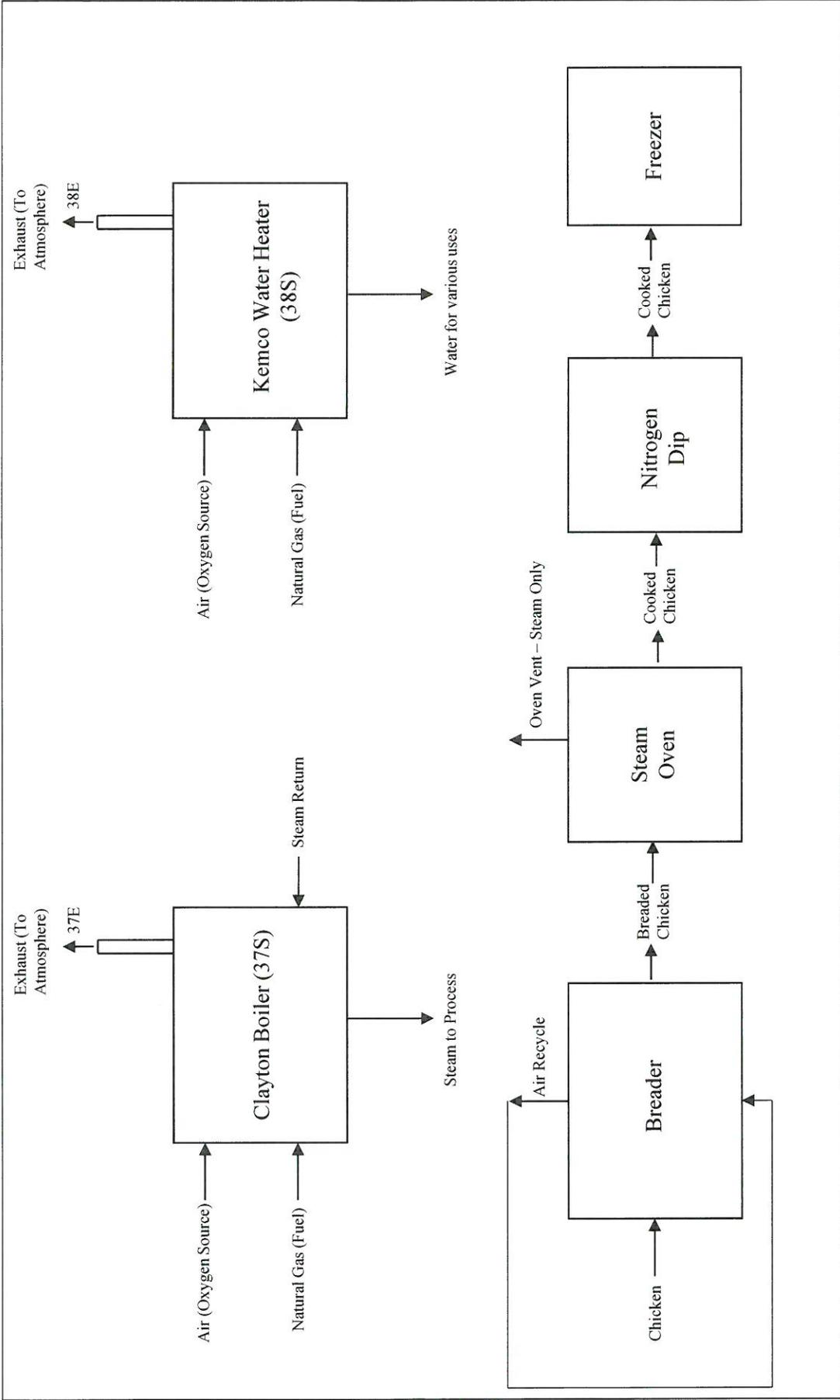


Potesta & Associates, Inc.
 ENGINEERS AND ENVIRONMENTAL CONSULTANTS
 7012 MacCorkle Ave. SE, Charleston, WV 25304
 TEL: (304) 342-1400 FAX: (304) 343-9031
 E-Mail Address: potesta@potesta.com

Project		SITE PLAN	
		PILGRIM'S MOOREFIELD PREPARED FOODS PLANT	
		MOOREFIELD, WEST VIRGINIA	
Scale	NOT TO SCALE	Dwg. No.	E
Date	MAY 2016		

ATTACHMENT F

DETAILED PROCESS FLOW DIAGRAM



Pilgrim's Moorefield Prepared Foods Plant
Process Flow Diagram
 Hardy County, West Virginia
 Project No. 0101-16-0146-010

7012 MacCorkle Avenue, SE
 Charleston, West Virginia 25304
 Phone: (304) 342-1400
 Fax: (304) 343-9031



ATTACHMENT G
PROCESS DESCRIPTION

ATTACHMENT G

PROCESS DESCRIPTION

Proposed Addition

Pilgrim's Pride Corporation (Pilgrim's) proposes to install an additional cook line at the Moorefield, West Virginia facility. The cook line will consist of a new Clayton boiler (37S, 37E), a Kemco water heater (38S, 38E), three nitrogen tanks, a breading system, a steam oven, a nitrogen dip, and a freezer. The breading system will not generate particulate emissions because it recycles air instead of venting to the atmosphere. The three nitrogen tanks will not generate regulated emissions and will be located outdoors. The steam oven will only vent steam.

Raw product is breaded in the breading machine before being cooked in a steam oven. Breaded and cooked product is then nitrogen dipped to quickly freeze the outside in order to preserve the breading before being packaged, completely frozen in the freezer and transferred to cold storage until shipment.

Equipment Removed From Service/Permit

Pilgrims proposes to remove four (4) pieces of equipment from its current R13 Permit which has either been removed or was proposed and never installed. The following equipment will be removed from Pilgrim's permit:

- A proposed Fulton Heater (33S/31E) that was never installed
- A Nothum Breader (30S/28E) which is no longer on site
- A proposed Hurst Waste Boiler (22S/21E) that was never installed
- A Fulton Thermal Fluid Boiler (5S/5E) which is on-site but is no longer in service

The equipment being removed from the permit may be left within the plant, but will be inoperable.

ATTACHMENT I
EMISSION UNITS TABLE

ATTACHMENT J

EMISSION POINTS DATA SUMMARY SHEET

Attachment J EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
37E	Vertical	37S	Clayton Boiler	NA	NA	NA	NA	PM/PM10/PM2.5	0.16	0.70	0.16	0.70	Solid	AP-42	NA
								PM Condensable	0.12	0.53	0.12	0.53	Solid		
								PM Filterable	0.04	0.18	0.04	0.18	Solid		
								SO2	0.01	0.04	0.01	0.04	Gas		
								NOx	2.28	9.99	2.28	9.99	Gas		
								CO	0.75	3.29	0.75	3.29	Gas		
								VOC	0.11	0.48	0.11	0.48	Gas		
Formaldehyde	0.001	0.006	0.001	0.006	Gas										
Total HAPS	0.04	0.17	0.04	0.17	Vapor/Solid										
38E	Vertical	38S	Kemco Water Heater	NA	NA	NA	NA	PM/PM10/PM2.5	0.112	0.49	0.112	0.49	Solid	AP-42	NA
								PM Condensable	0.084	0.37	0.084	0.37	Solid		
								PM Filterable	0.028	0.12	0.028	0.12	Solid		
								SO2	0.009	0.04	0.009	0.04	Gas		
								NOx	1.471	6.44	1.471	6.44	Gas		
								CO	1.235	5.41	1.235	5.41	Gas		
								VOC	0.081	0.35	0.081	0.35	Gas		
Formaldehyde	0.001	0.005	0.001	0.005	Gas										
Total HAPS	0.03	0.12	0.03	0.12	Vapor/Solid										

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all listed emissions, all fugitive emissions, plus all other emissions (e.g. uncapture emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

¹ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
² Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 46CSR7). If the pollutant is SO₂, use units of ppmv (See 46CSR10).
³ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number/LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.
⁴ Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
⁵ Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
⁶ Indicate method used to determine emission rate applies. MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).
⁷ Provide for all pollutant emissions.

ATTACHMENT L
EMISSIONS UNIT DATA SHEET

Attachment L
Emission Unit Data Sheet
(INDIRECT HEAT EXCHANGER)

Control Device ID No. (must match List Form): 37S

Equipment Information

1. Manufacturer: Clayton Industries	2. Model No. E-504 Serial No. NA
3. Number of units: 1	4. Use Produce process steam.
5. Rated Boiler Horsepower: 500 hp	6. Boiler Serial No.: NA
7. Date constructed: NA	8. Date of last modification and explain: NA
9. Maximum design heat input per unit: 20.412 ×10 ⁶ BTU/hr	10. Peak heat input per unit: 20.412 ×10 ⁶ BTU/hr
11. Steam produced at maximum design output: 17,250 LB/hr 500 psig	12. Projected Operating Schedule: Hours/Day 24 Days/Week 7 Weeks/Year 365
13. Type of firing equipment to be used: <input type="checkbox"/> Pulverized coal <input type="checkbox"/> Spreader stoker <input type="checkbox"/> Oil burners <input checked="" type="checkbox"/> Natural Gas Burner <input type="checkbox"/> Others, specify	14. Proposed type of burners and orientation: <input type="checkbox"/> Vertical <input type="checkbox"/> Front Wall <input type="checkbox"/> Opposed <input type="checkbox"/> Tangential <input type="checkbox"/> Others, specify
15. Type of draft: <input type="checkbox"/> Forced <input type="checkbox"/> Induced	16. Percent of ash retained in furnace: negligible %
17. Will flyash be reinjected? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	18. Percent of carbon in flyash: NA %

Stack or Vent Data

19. Inside diameter or dimensions: 2.7 ft.	20. Gas exit temperature: ~400 °F
21. Height: NA ft.	22. Stack serves: <input checked="" type="checkbox"/> This equipment only <input type="checkbox"/> Other equipment also (submit type and rating of all other equipment exhausted through this stack or vent)
23. Gas flow rate: 6,494 ft ³ /min	
24. Estimated percent of moisture: NA %	

Emissions Stream

37. What quantities of pollutants will be emitted from the boiler before controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	0.75	NA	400	Ambient
Hydrocarbons	NA	NA		
NO _x	2.28	NA		
Pb	NA	NA		
PM ₁₀	0.16	NA		
SO ₂	0.01	NA		
VOCs	0.11	NA		
Other (specify) HAPs	0.04	NA		

38. What quantities of pollutants will be emitted from the boiler after controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	0.75	NA	400	Ambient
Hydrocarbons	NA	NA		
NO _x	2.28	NA		
Pb	NA	NA		
PM ₁₀	0.16	NA		
SO ₂	0.01	NA		
VOCs	0.11	NA		
Other (specify) HAPs	0.04	NA		

39. How will waste material from the process and control equipment be disposed of?

NA

40. Have you completed an *Air Pollution Control Device Sheet(s)* for the control(s) used on this Emission Unit. NA

41. Have you included the **air pollution rates** on the Emissions Points Data Summary Sheet? Yes

42. 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 PLAN: Please list (1) describe the process parameters and how they were chosen (2) the ranges and how they were established for monitoring to demonstrate compliance with the operation of this process equipment operation or air pollution control device.

The applicant will monitor the amount of natural gas combusted each month.

TESTING PLAN: Please describe any proposed emissions testing for this process equipment or air pollution control device.

Testing is not required by 40CFR60, Subpart Dc, nor is it proposed.

RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.

The applicant will maintain a record of the natural gas usage and record this data by either a written or electronic log.

REPORTING: Please describe the proposed frequency of reporting of the recordkeeping.

In regard to monitoring required by §60.48c(g), §60.48c(i) states that these records are required to be maintained on site for a period of at least two (2) years, however, previous 45CSR13 permits for the facility have extended this timeframe to five (5) years.

Initial notification, as required by §60.48c(a), (a)(1) and (a)(3), must provide the date of construction, anticipated startup, actual startup, design heat input, identification of fuels to be fired and the annual capacity factor at which the boiler is anticipated to be operated. This notification is to be made in accordance with the timeframe specified in §60.7

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

Operate as designed.

Attachment L
Emission Unit Data Sheet
(INDIRECT HEAT EXCHANGER)

Control Device ID No. (must match List Form): 38S

Equipment Information

1. Manufacturer: Kemco Systems, Inc.	2. Model No. NA Serial No. NA
3. Number of units: 1	4. Use Produce heated water.
5. Rated Boiler Horsepower: NA hp	6. Boiler Serial No.: NA
7. Date constructed: NA	8. Date of last modification and explain: NA
9. Maximum design heat input per unit: 15 $\times 10^6$ BTU/hr	10. Peak heat input per unit: 15 $\times 10^6$ BTU/hr
11. Steam produced at maximum design output: NA LB/hr NA psig	12. Projected Operating Schedule: Hours/Day 24 Days/Week 7 Weeks/Year 365
13. Type of firing equipment to be used: <input type="checkbox"/> Pulverized coal <input type="checkbox"/> Spreader stoker <input type="checkbox"/> Oil burners <input checked="" type="checkbox"/> Natural Gas Burner <input type="checkbox"/> Others, specify	14. Proposed type of burners and orientation: <input type="checkbox"/> Vertical <input type="checkbox"/> Front Wall <input type="checkbox"/> Opposed <input type="checkbox"/> Tangential <input type="checkbox"/> Others, specify
15. Type of draft: <input type="checkbox"/> Forced <input type="checkbox"/> Induced	16. Percent of ash retained in furnace: negligible %
17. Will flyash be reinjected? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	18. Percent of carbon in flyash: NA %

Stack or Vent Data

19. Inside diameter or dimensions: 2.5 ft.	20. Gas exit temperature: 70 °F
21. Height: NA ft.	22. Stack serves: <input checked="" type="checkbox"/> This equipment only <input type="checkbox"/> Other equipment also (submit type and rating of all other equipment exhausted through this stack or vent)
23. Gas flow rate: 46.63 ft ³ /min	
24. Estimated percent of moisture: NA %	

Emissions Stream

37. What quantities of pollutants will be emitted from the boiler before controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	1.235	NA	70	Ambient
Hydrocarbons	NA	NA		
NO _x	1.471	NA		
Pb	NA	NA		
PM ₁₀	0.112	NA		
SO ₂	0.009	NA		
VOCs	0.081	NA		
Other (specify) HAPs	0.03	NA		

38. What quantities of pollutants will be emitted from the boiler after controls?

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
CO	1.235	NA	70	Ambient
Hydrocarbons	NA	NA		
NO _x	1.471	NA		
Pb	NA	NA		
PM ₁₀	0.112	NA		
SO ₂	0.009	NA		
VOCs	0.081	NA		
Other (specify) HAPs	0.03	NA		

39. How will waste material from the process and control equipment be disposed of?

NA

40. Have you completed an *Air Pollution Control Device Sheet(s)* for the control(s) used on this Emission Unit. NA

41. Have you included the *air pollution rates* on the Emissions Points Data Summary Sheet? Yes

42. 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 PLAN: Please list (1) describe the process parameters and how they were chosen (2) the ranges and how they were established for monitoring to demonstrate compliance with the operation of this process equipment operation or air pollution control device.

The applicant will monitor the amount of natural gas combusted each month.

TESTING PLAN: Please describe any proposed emissions testing for this process equipment or air pollution control device.

Testing is not required by 40CFR60, Subpart Dc, nor is it proposed.

RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.

The applicant will maintain a record of the natural gas usage and record this data by either a written or electronic log.

REPORTING: Please describe the proposed frequency of reporting of the recordkeeping.

In regard to monitoring required by §60.48c(g), §60.48c(i) states that these records are required to be maintained on site for a period of at least two (2) years, however, previous 45CSR13 permits for the facility have extended this timeframe to five (5) years.

Initial notification, as required by §60.48c(a), (a)(1) and (a)(3), must provide the date of construction, anticipated startup, actual startup, design heat input, identification of fuels to be fired and the annual capacity factor at which the boiler is anticipated to be operated. This notification is to be made in accordance with the timeframe specified in §60.7

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

Operate as designed.

ATTACHMENT N

SUPPORTING EMISSIONS CALCULATIONS

By: JJD
 Date: 7/19/2016

Checked By: ADM
 Date: 8/4/2016

Change in Facility PTE

PTE of Equipment to be Removed from Permit

21E/22S - Hurst Waste Boiler

Pollutant	lb/hr	tpy
CO	4.2	18.4
NOx	1.64	7.18
PM/PM10/PM2.5	2.6	11.39
SO2	0.82	3.59
VOC	0.24	1.05

5E/5S - Fulton Thermal Fluid Boiler

Pollutant	lb/hr	tpy
CO	0.51	2.23
NOx	0.24	1.05
PM/PM10/PM2.5	0.03	0.13

28E/30S Nothum Breader²

Pollutant	lb/hr	tpy
PM	0.011	0.049

31E/33S - Fulton Heater

Pollutant	lb/hr	tpy
CO	0.84	4.38
NOx	1.00	3.68
PM/PM10/PM2.5	0.08	0.33
SO2	0.006	0.03
VOC	0.06	0.24

Current PTE¹

Pollutant	lb/hr	tpy
CO	13.4	58.57
NOx	19.35	84.74
PM/PM10/PM2.5	5.49	23.97
SO2	0.91	3.98
VOC	0.86	3.75

New Cook Line PTE

Pollutant	lb/hr	tpy
CO	1.99	8.70
NOx	3.75	16.43
PM/PM10/PM2.5	0.27	1.19
PM Condensable	0.20	0.90
PM Filterable	0.07	0.30
SO2	0.02	0.08
VOC	0.19	0.83

New Facility PTE

Pollutant	lb/hr	tpy
CO	9.80	42.26
NOx	20.22	89.26
PM/PM10/PM2.5	3.04	13.26
SO2	0.10	0.44
VOC	0.75	3.30

1. Current PTE determined using PTE stated in R13-1863A and adjusting emissions based on changes in permits R13-1863B through E.
2. Nothum Breader PTE calculated based on uncontrolled emissions with 98.8% control.

By: JJD
Date: 7/19/2016

Checked By: ADM
Date: 8/4/2016

New Cook Line PTE

Emission Type	Uncontrolled		Controlled	
	lb/hr	tpy	lb/hr	tpy
PM	0.27	1.19	0.27	1.19
PM10	0.27	1.19	0.27	1.19
PM2.5	0.27	1.19	0.27	1.19
PM Condensable	0.20	0.90	0.20	0.90
PM Filterable	0.07	0.30	0.07	0.30
SO2	0.02	0.08	0.02	0.08
NOx	3.75	16.43	3.75	16.43
CO	1.99	8.70	1.99	8.70
VOC	0.19	0.83	0.19	0.83
VOC HAPs	0.07	0.29	0.07	0.29
Metal HAPs	0.0002	0.0008	0.0002	0.0008
Total HAPs	0.07	0.29	0.07	0.29

By: JJD
 Date: 7/19/2016

Checked By: ADM
 Date: 8/4/2016

Natural Gas Combustion from Clayton Model EG-504 Boiler - 500 HP (37S, 37E)

Maximum Design Heat Input = 20.412 MMBtu/hr
 Hours of Operation = 8,760 hrs/year
 Hours of Operation = 24 hrs/day
 Conversion from lb/MMBtu to lb/10⁶ scf (multiply by) = 1,020 Btu/scf

2.79

Emission Type	Emissions lb/day ⁽²⁾⁽³⁾	Uncontrolled		Controlled	
		lb/hr	tpy	lb/hr	tpy
PM	3.72	0.16	0.70	0.16	0.70
PM10 ⁽¹⁾	3.72	0.16	0.70	0.16	0.70
PM2.5 ⁽¹⁾	3.72	0.16	0.70	0.16	0.70
PM Condensable	2.79	0.12	0.53	0.12	0.53
PM Filterable	0.93	0.04	0.18	0.04	0.18
SO2	0.32	0.01	0.04	0.01	0.04
NOx	54.8	2.28	9.99	2.28	9.99
CO	17.9	0.75	3.29	0.75	3.29
VOC	2.64	0.11	0.48	0.11	0.48

Rounding = 2

- 1 - It is assumed that PM10 and PM2.5 are equal to TSP (PM).
- 2 - Lb/day emissions from Clayton Technical Specifications
- 3 - Condensable and Filterable emission factors from AP-42 Table 1.4-2. The following equation was used to convert Filterable and Condensable emission factors from lb/MMscf to lb/day: Filterable = 1.9 lb/MMscf divided by 7.6 lb/MMscf multiplied by 3.72 lb/day. Condensable = 5.7 lb/MMscf divided 7.6 lb/MMscf multiplied by

By: JJD
 Date: 7/19/2016

Checked By: ADM
 Date: 8/4/2016

HAPs for Clayton Model EG-504 Boiler - 500 HP (37S, 37E)

Burner Rating = 20.412 MMBtu/hr
 Operating Hours = 8,760 hrs/yr
 Conversion from lb/10⁶ scf to lb/MMBtu (divide by⁽¹⁾) = 1.020 Btu/cf

CAS No.	Hazardous Air Pollutants	EF ¹		Uncontrolled		Controlled	
		lb/10 ⁶ scf	lb/MMBtu	lb/hr	tpy	lb/hr	tpy
91-57-6	2-Methylnaphthalene	2.40E-05	2.35E-08	4.80E-07	2.10E-06	4.80E-07	2.10E-06
56-49-5	3-Methylchloranthrene	1.80E-06	1.76E-09	3.60E-08	1.58E-07	3.60E-08	1.58E-07
57-97-6	7,12-Dimethylbenz(a)anthracene	1.60E-05	1.57E-08	3.20E-07	1.40E-06	3.20E-07	1.40E-06
83-32-9	Acenaphthene	1.80E-06	1.76E-09	3.60E-08	1.58E-07	3.60E-08	1.58E-07
203-96-8	Acenaphthylene	1.80E-06	1.76E-09	3.60E-08	1.58E-07	3.60E-08	1.58E-07
120-12-7	Anthracene	2.40E-06	2.35E-09	4.80E-08	2.10E-07	4.80E-08	2.10E-07
56-55-3	Benz(a)anthracene	1.80E-06	1.76E-09	3.60E-08	1.58E-07	3.60E-08	1.58E-07
71-43-2	Benzene	2.10E-03	2.06E-06	4.20E-05	1.84E-04	4.20E-05	1.84E-04
50-32-8	Benzo(a)pyrene	1.20E-06	1.18E-09	2.40E-08	1.05E-07	2.40E-08	1.05E-07
205-99-2	Benzo(b)fluoranthene	1.80E-06	1.76E-09	3.60E-08	1.58E-07	3.60E-08	1.58E-07
191-24-2	Benzo(g,h,i)perylene	1.20E-06	1.18E-09	2.40E-08	1.05E-07	2.40E-08	1.05E-07
205-82-3	Benzo(k)fluoranthene	1.80E-06	1.76E-09	3.60E-08	1.58E-07	3.60E-08	1.58E-07
218-01-9	Chrysene	1.80E-06	1.76E-09	3.60E-08	1.58E-07	3.60E-08	1.58E-07
53-70-3	Dibenzo(a,h)anthracene	1.20E-06	1.18E-09	2.40E-08	1.05E-07	2.40E-08	1.05E-07
25321-22-6	Dichlorobenzene	1.20E-03	1.18E-06	2.40E-05	1.05E-04	2.40E-05	1.05E-04
206-44-0	Fluoranthene	3.00E-06	2.94E-09	6.00E-08	2.63E-07	6.00E-08	2.63E-07
86-73-7	Fluorene	2.80E-06	2.75E-09	5.60E-08	2.45E-07	5.60E-08	2.45E-07
50-00-0	Formaldehyde	7.20E-02	7.06E-05	1.44E-03	6.31E-03	1.44E-03	6.31E-03
110-54-3	Hexane	1.80E+00	1.76E-03	3.60E-02	1.58E-01	3.60E-02	1.58E-01
193-39-5	Indeno(1,2,3-cd)pyrene	1.80E-06	1.76E-09	3.60E-08	1.58E-07	3.60E-08	1.58E-07
91-20-3	Naphthalene	6.10E-04	5.98E-07	1.22E-05	5.35E-05	1.22E-05	5.35E-05
85-01-8	Phenanathrene	1.70E-05	1.67E-08	3.40E-07	1.49E-06	3.40E-07	1.49E-06
129-00-0	Pyrene	5.00E-06	4.90E-09	1.00E-07	4.38E-07	1.00E-07	4.38E-07
108-88-3	Toluene	3.40E-03	3.33E-06	6.80E-05	2.98E-04	6.80E-05	2.98E-04
7440-38-2	Arsenic	2.00E-04	1.96E-07	4.00E-06	1.75E-05	4.00E-06	1.75E-05
7440-41-7	Beryllium	1.20E-05	1.18E-08	2.40E-07	1.05E-06	2.40E-07	1.05E-06
7440-43-9	Cadmium	1.10E-03	1.08E-06	2.20E-05	9.64E-05	2.20E-05	9.64E-05
7440-47-3	Chromium	1.40E-03	1.37E-06	2.80E-05	1.23E-04	2.80E-05	1.23E-04
7440-48-4	Cobalt	8.40E-05	8.24E-08	1.68E-06	7.36E-06	1.68E-06	7.36E-06
7439-96-5	Manganese	3.80E-04	3.73E-07	7.60E-06	3.33E-05	7.60E-06	3.33E-05
7439-97-6	Mercury	2.60E-04	2.55E-07	5.20E-06	2.28E-05	5.20E-06	2.28E-05
7440-02-0	Nickel	2.10E-03	2.06E-06	4.20E-05	1.84E-04	4.20E-05	1.84E-04
7782-49-2	Selenium	2.40E-05	2.35E-08	4.80E-07	2.10E-06	4.80E-07	2.10E-06
VOC HAPs Subtotal				0.04	0.165	0.04	0.165
Metal HAPs Subtotal				0.0001	0.0005	0.0001	0.0005
Total HAPs				0.04	0.17	0.04	0.17

References:

⁽¹⁾ AP42 Table 1.4-3 and Table 1.4-4

By: JJD
 Date: 7/19/2016

Checked By: ADM
 Date: 8/4/2016

Natural Gas Combustion for Kemco Water Heater (38S, 38E)

Burner Rating = 15 MMBtu/hr
 1,020 BTU/cf
 0.015 MMSCF/hr

Emission Type	Emissions lb/MMSCF ⁽²⁾	Uncontrolled		Controlled	
		lb/hr	tpy	lb/hr	tpy
PM	7.6	0.112	0.49	0.112	0.49
PM10 ⁽¹⁾	7.6	0.112	0.49	0.112	0.49
PM2.5 ⁽¹⁾	7.6	0.112	0.49	0.112	0.49
PM Condensable	5.7	0.084	0.37	0.084	0.37
PM Filterable	1.9	0.028	0.12	0.028	0.12
SO2	0.6	0.009	0.04	0.009	0.04
NOx	100	1.471	6.44	1.471	6.44
CO	84	1.235	5.41	1.235	5.41
VOC	5.5	0.081	0.35	0.081	0.35

Rounding = 3

1 - It is assumed that PM and PM2.5 are equal to PM10.

2 - Emissions and emission factors from Kemco Systems, Inc. Emission Factor Calculations

By: JJD
 Date: 7/19/2016

Checked By: ADM
 Date: 8/4/2016

HAPS - Kemco Water Heater (38S, 38E)

Burner Rating = 15 MMBtu/hr
 Operating Hours = 8,760 hrs/yr
 Conversion from lb/10⁶ scf to lb/MMBtu (divide by)⁽¹⁾ = 1,020 Btu/cf

CAS No.	Hazardous Air Pollutants	EF ¹		Uncontrolled		Controlled	
		lb/10 ⁶ scf	lb/MMBtu	lb/hr	tpy	lb/hr	tpy
91-57-6	2-Methylnaphthalene	2.40E-05	2.35E-08	3.53E-07	1.55E-06	3.53E-07	1.55E-06
56-49-5	3-Methylchloranthrene	1.80E-06	1.76E-09	2.65E-08	1.16E-07	2.65E-08	1.16E-07
57-97-6	7,12-Dimethylbenz(a)anthracene	1.60E-05	1.57E-08	2.35E-07	1.03E-06	2.35E-07	1.03E-06
83-32-9	Acenaphthene	1.80E-06	1.76E-09	2.65E-08	1.16E-07	2.65E-08	1.16E-07
203-96-8	Acenaphthylene	1.80E-06	1.76E-09	2.65E-08	1.16E-07	2.65E-08	1.16E-07
120-12-7	Anthracene	2.40E-06	2.35E-09	3.53E-08	1.55E-07	3.53E-08	1.55E-07
56-55-3	Benz(a)anthracene	1.80E-06	1.76E-09	2.65E-08	1.16E-07	2.65E-08	1.16E-07
71-43-2	Benzene	2.10E-03	2.06E-06	3.09E-05	1.35E-04	3.09E-05	1.35E-04
50-32-8	Benzo(a)pyrene	1.20E-06	1.18E-09	1.76E-08	7.73E-08	1.76E-08	7.73E-08
205-99-2	Benzo(b)fluoranthene	1.80E-06	1.76E-09	2.65E-08	1.16E-07	2.65E-08	1.16E-07
191-24-2	Benzo(g,h,i)perylene	1.20E-06	1.18E-09	1.76E-08	7.73E-08	1.76E-08	7.73E-08
205-82-3	Benzo(k)fluoranthene	1.80E-06	1.76E-09	2.65E-08	1.16E-07	2.65E-08	1.16E-07
218-01-9	Chrysene	1.80E-06	1.76E-09	2.65E-08	1.16E-07	2.65E-08	1.16E-07
53-70-3	Dibenzo(a,h)anthracene	1.20E-06	1.18E-09	1.76E-08	7.73E-08	1.76E-08	7.73E-08
25321-22-6	Dichlorobenzene	1.20E-03	1.18E-06	1.76E-05	7.73E-05	1.76E-05	7.73E-05
206-44-0	Fluoranthene	3.00E-06	2.94E-09	4.41E-08	1.93E-07	4.41E-08	1.93E-07
86-73-7	Fluorene	2.80E-06	2.75E-09	4.12E-08	1.80E-07	4.12E-08	1.80E-07
50-00-0	Formaldehyde	7.20E-02	7.06E-05	0.001	0.005	0.001	0.005
110-54-3	Hexane	1.80E+00	1.76E-03	2.65E-02	1.16E-01	2.65E-02	1.16E-01
193-39-5	Indeno(1,2,3-cd)pyrene	1.80E-06	1.76E-09	2.65E-08	1.16E-07	2.65E-08	1.16E-07
91-20-3	Naphthalene	6.10E-04	5.98E-07	8.97E-06	3.93E-05	8.97E-06	3.93E-05
85-01-8	Phenanathrene	1.70E-05	1.67E-08	2.50E-07	1.10E-06	2.50E-07	1.10E-06
129-00-0	Pyrene	5.00E-06	4.90E-09	7.35E-08	3.22E-07	7.35E-08	3.22E-07
108-88-3	Toluene	3.40E-03	3.33E-06	5.00E-05	2.19E-04	5.00E-05	2.19E-04
7440-38-2	Arsenic	2.00E-04	1.96E-07	2.94E-06	1.29E-05	2.94E-06	1.29E-05
7440-41-7	Beryllium	1.20E-05	1.18E-08	1.76E-07	7.73E-07	1.76E-07	7.73E-07
7440-43-9	Cadmium	1.10E-03	1.08E-06	1.62E-05	7.09E-05	1.62E-05	7.09E-05
7440-47-3	Chromium	1.40E-03	1.37E-06	2.06E-05	9.02E-05	2.06E-05	9.02E-05
7440-48-4	Cobalt	8.40E-05	8.24E-08	1.24E-06	5.41E-06	1.24E-06	5.41E-06
7439-96-5	Manganese	3.80E-04	3.73E-07	5.59E-06	2.45E-05	5.59E-06	2.45E-05
7439-97-6	Mercury	2.60E-04	2.55E-07	3.82E-06	1.67E-05	3.82E-06	1.67E-05
7440-02-0	Nickel	2.10E-03	2.06E-06	3.09E-05	1.35E-04	3.09E-05	1.35E-04
7782-49-2	Selenium	2.40E-05	2.35E-08	3.53E-07	1.55E-06	3.53E-07	1.55E-06
VOC HAPs Subtotal				0.028	0.121	0.028	0.121
Metal HAPs Subtotal				0.0001	0.0004	0.0001	0.0004
Total HAPs				0.03	0.12	0.03	0.12

References:

⁽¹⁾ AP42 Table 1.4-3 and Table 1.4-4

ATTACHMENT O

**MONITORING/RECORDKEEPING/REPORTING/TESTING
PLANS**

ATTACHMENT O

MONITORING/RECORDKEEPING/REPORTING/TESTING PLANS

Pilgrim's Pride Corporation requests monitoring, recordkeeping, reporting and testing as stated in the Emissions Unit Data Sheets contained in Attachment L.

ATTACHMENT P

PUBLIC NOTICE

LEGAL ADVERTISEMENT

AIR QUALITY PERMIT NOTICE

Notice of Application

Notice is given that Pilgrim's Pride Corporation has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Class II Administrative Update of Permit R13-1863E at the Moorefield Prepared Foods Plant located on South Main Street in Moorefield, Hardy County, West Virginia. The latitude and longitude coordinates are: 39.058407 and -78.971905.

The applicant estimates the potential increase to discharge the following Regulated Air Pollutants will be: PM of 1.19 tons per year (tpy); PM10 of 1.19 tpy; PM2.5 of 1.19 tpy; VOC of 0.83 tpy; SO2 of 0.08 tpy; CO of 8.70 tpy; NOx of 16.43 tpy; and total HAPs of 0.29 tpy.

Startup of operation is planned to begin on or about the 5th day of December, 2016. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

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

Dated this the **(PLEASE INSERT DATE)** day of September, 2016.

By: Pilgrim's Pride Corporation
Dave Townsend
Vice President
214 South Main Street
Moorefield, West Virginia 26836

APPENDIX

**CLAYTON BOILER AND KEMCO WATER HEATER
TECHNICAL SPECIFICATIONS**

TYPICAL "XX4 MODEL (w/standard burner) GENERATOR EMISSIONS : NATURAL GAS

January 27, 2015

MODEL		E-404	SE-404	E-504	SE-504	E-604	SE-604	E-704	SE-704	E-804	SE-804	E-1004	SE-1004
BOILER HORSE POWER		400	400	500	500	600	600	700	700	800	800	1000	1000
ASSUMED EFFICIENCY, %		82	85	82	85	82	85	82	85	82	85	82	85
RATED INPUT (MMBTU/HR)		16.329	15.753	20.412	19.691	24.494	23.629	28.576	27.568	32.659	31.506	40.823	39.382
FLUE GAS RATE (SCFM)		3.201	3.088	4.002	3.861	4.802	4.633	5.603	5.405	6.403	6.177	8.004	7.721
FLUE GAS RATE (ACFM)400 F		5.195	5.012	6.494	6.264	7.792	7.517	9.091	8.770	10.390	10.023	12.987	12.629
FLUE GAS RATE (LBS/HR)		14.121	13.623	17.652	17.029	21.182	20.434	24.712	23.840	28.243	27.246	35.303	34.057
EXH STACK DIA. (IN)		32	32	32	32	32	32	36	36	36	36	44	44
FLUE VELOCITY (FT/S) 400 F		15.5	15.0	19.4	18.7	23.3	22.4	21.4	20.7	24.5	23.6	20.5	19.8
NOx	PPMV	88	88	94	94	98	98	98	98	98	98	98	98
	LBS/DAY	41.1	39.6	54.8	52.9	68.6	66.2	80.0	77.2	91.4	88.2	114.3	110.3
CO	PPMV	50	50	50	50	50	50	50	50	50	50	50	50
	LBS/DAY	14.3	13.8	17.9	17.2	21.5	20.7	25.0	24.1	28.6	27.6	35.8	34.5
2 SO2 (est)	PPMV	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
	LBS/DAY	0.25	0.24	0.32	0.31	0.38	0.37	0.44	0.43	0.51	0.49	0.63	0.61
4 & 7 PARTICULATES (es)	LBS/DAY	2.98	2.87	3.72	3.59	4.47	4.31	5.21	5.03	5.96	5.75	7.45	7.18
4 VOC (est)	LBS/DAY	2.11	2.04	2.64	2.55	3.17	3.06	3.70	3.57	4.22	4.08	5.28	5.09
4 TOC (est)	LBS/DAY	4.22	4.08	5.28	5.09	6.34	6.11	7.39	7.13	8.45	8.15	10.56	10.19

notes

- NOTE 1) EMISSION DATA GIVEN FOR MAXIMUM CONTINUOUS FIRING RATE (15% EXCESS AIR) PPMV VALUES CORRECTED TO 3% O2
- 2) VALUES FOR SULFUR DIOXIDE ASSUME 50 % CONVERSION FROM SULFUR CONTENT IN FUEL (5 PPMW ASSUMED)
- 3) DATA BASED ON 1000 BTU/CUFT NATURAL GAS.
- 4) ESTIMATED VALUES BASED ON TYPICAL INDUSTRY DATA.
- 5) INDICATED VALUES ARE TYPICAL ONLY. ACTUAL VALUES WILL VARY WITH ACTUAL OPERATING CONDITIONS.
- 6) CONDULT FACTORY FOR GUARANTEED VALUE.
- 7) ALL PARTICULATED TYPICALLY LESS THAN 1 MICRON DIAMETER, TWENTY-FIVE PERCENT BY WEIGHT FILTERABLE, BALANCE IS CONDENSABLE.

EMISSION2.xls BG

TABLE 5



KEMCO SYSTEMS, INC.

11500 47th STREET NORTH, CLEARWATER, FL 33762 USA

KEMCO EMISSION FACTOR CALCULATIONS

Kemco proposal: 26554-R5

Kemco design exhaust temperature: 70°F

Kemco stack diameter: 30"

Kemco exhaust gas velocity: 9.5 ft/sec

<u>Pollutant</u>	<u>AP-42 Emission Factor {Lb./10⁶SCF}</u>	<u>Lbs./Hr.</u>	<u>Tons/Yr.</u>
PM	7.6	0.112	0.49
SO ₂	0.6	0.009	0.04
VOC	5.5	0.081	0.35
CO	84	1.235	5.41
NO _x	100	1.471	6.44
HAP	0.10	0.001	0.006

Emission factors were derived from the EPA document (AP-42, section 1.4) for natural-gas combustion. The EPA data is expressed in pounds of pollutant per million cu. Ft. of fuel { LB./10⁶SCF }

The new Kemco Heater will burn a maximum of 15-million BTU/Hr, so Pounds per hour and tons per year (TPY) were calculated as follows:

$$\{ \text{Lb./10}^6 \text{SCF} \} \times [1/1020 \{ \text{SCF/BTU} \}] \times [15 \{ 10^6 \text{BTU/Hr} \}] = \{ \text{Lb./Hr.} \}$$

$$\{ \text{Lb./Hr.} \} \times [24 \{ \text{Hr/Day} \}] \times [365 \{ \text{Day/Yr.} \}] \times [1/2000 \{ \text{Lb/Ton} \}] = \{ \text{Ton/Yr.} \}$$

Combining all these factors gives:

$$\{ \text{Lb./10}^6 \text{SCF} \} / 68.0 = \{ \text{Lb./Hr.} \} \text{ and,}$$

$$\{ \text{Lb./10}^6 \text{SCF} \} / 15.52 = \{ \text{TPY} \}$$

