July 29, 2020

RECEIVED
JUL 31 2020
ADEM AIR DIVISION

Mr. Ronald Gore
Alabama Department of Environmental Management
Natural Resources Section
Air Division
1400 Coliseum Blvd.
Montgomery, Alabama 36110

Re: Construction Permit Application for New Animal Feed Ingredients Plant
Pilgrim's Pride Corporation
Gadsden, Alabama

Mr. Gore,

Pilgrim's Pride Corporation (Pilgrim's) is planning to construct a new animal feed ingredient production facility in the city of Gadsden, Etowah County, Alabama. Construction will occur at a greenfield site within Gadsden city limits. Operations will be classified under primary SIC Code 2077 – Animal Fats and Oils. The facility will receive poultry byproducts via truck. The raw materials will be processed through cooking and drying processes to recover the proteins and produce finished poultry meals and poultry fat. These end products will be loaded onto trucks and shipped offsite to animal feed manufacturers. The process heat used in cooking and drying operations will be provided by onsite natural gas fired boilers.

Attached is one (1) original and one (1) copy of the completed air permit application for the construction of emission sources at the proposed Gadsden Facility. The air permit application packet contains details of these systems.

Please note that the boilers will be "gas-fired boilers" as defined under 40 CFR 63, Subpart JJJJJJ (NESHAP for Industrial Commercial and Institutional Area Sources), and therefore will not be subject to the requirements of 40 CFR 63, Subpart JJJJJJ. The boilers will be subject to the requirements of 40 CFR Part 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units).

It is our understanding that Pilgrim's will be billed for emission fees after ADEM has defined the actual number of air permits required for the Facility.

Please note that portions of this application, specifically Forms 105, Attachment B and Attachment F, contain confidential business information and we request this information not be publicly available. Redacted and protected copies of these documents are included herein. Please refer to the confidentiality request letter in this application.

If you have any questions, please contact Barry Griffith at (479) 263-9611 (barry.griffith@pilgrims.com) or Trent Samples at (770) 844-0037 (tsamples@wheeinc.com).

Sincerely,

Pilgrim's Pride Corporation

Mark Glover
Head of By-Products/MSC

Cc: Mr. Barry Griffith (Pilgrim's)
Mr. Dave Townsend (Pilgrim's)
Mr. Trent Samples (WHEE, Inc.)

Title V Permit Application
Gadsden Animal Feed Ingredients Plant

Pilgrim's Pride Corporation
Gadsden, Alabama

RECEIVED
JUL 31 2020
ADEM AIR DIVISION

July 28, 2020

Title V Permit Application

Table of Contents

July 28, 2020

Alabama Department of Environmental Management
Natural Resources Section
Air Division
1400 Coliseum Blvd.
Montgomery, Alabama 36110

Re: Confidential Business Information and Confidentiality Request
Pilgrim's Pride Corporation – Gadsden Rendering Plant

To Whom It May Concern,

Pilgrim's Pride Corporation formally requests that portions of this application, specially Form 105 – Animal Feed Ingredient Processing, Attachment B – Emission Inventory, Attachment C – Process Flow Diagram and Attachment F – Emission Factors and References, be considered as confidential business information and not made publicly available. Applicable pages of these forms and Attachments are marked Confidential.

These "Confidential" forms and Attachments contain proprietary engineering data, internal engineering stack testing data and plant production capacity information. This process information constitutes a trade secret because this information and data derives significant economic value from not being generally known to our competitors in a highly competitive industry. The global marketplace requires that knowledge of our production capacity remain unknown to the general public. A public (redacted) version of these forms and attachments are also provided.

Sincerely,

Pilgrim's Pride Corporation

Mark Glover
Head of By-Products/MSC

Pilgrim's Pride Corporation
Gadsden, AL Animal Feed Ingredients
Project Narrative

Facility and Process Description

Pilgrim's Pride Corporation (Pilgrim's) will be constructing a new animal feed ingredients facility in the city of Gadsden, Etowah County, Alabama. Construction will occur at a greenfield site. Operations will be classified under primary SIC Code 2077 – Animal Fats and Oils. The facility will receive raw chicken meat, bones, feathers, blood and secondary protein nutrients (SPN) via truck. SPN is oil/grease recovered from wastewater pretreatment operations at poultry processing facilities. The raw materials will be processed through cooking and drying processes to produce the following finished products: poultry meals, poultry fat and feather meal (animal feed ingredients). These end products will be loaded onto trucks and shipped offsite to animal feed manufacturers. The process heat used in cooking and drying operations will be provided by onsite natural gas fired boilers.

Poultry Byproducts Processing

Raw chicken meat, bones and birds that were dead-on-arrival (DOA) will be received in trailers. Upon arrival, excess water is drained from trailers and will be treated by the onsite wastewater treatment system. The raw materials will be dumped into the appropriate holding bins before being mixed, blended and conveyed into a multi-stage evaporator. DOA birds are hydrolyzed before blending with the other byproducts. After the evaporation process, the material will be centrifuged to separate the meal solids and the fat. The solids will be expelled, pressed and ground to form poultry meals. The poultry meal will be conveyed to storage silos. Conveying systems are enclosed and not considered a significant source of emissions. Finished poultry meal will be loaded out into a truck for offsite transport. The fat will be further centrifuged before storage in aboveground fat storage tanks. Finished poultry fat will be pumped from the storage tanks into tanker trailers for offsite transport. Process vapors removed during the heating processes will travel through a water-cooled condenser and the condensed liquids will be treated in the onsite wastewater treatment system prior to discharge to the local publicly owned treatment works (POTW). Non-condensable vapors will be exhausted to the Air Washer and RTO as described below.

Feather Processing

Raw feathers are received in trailers and dumped into a feather bin. The feathers are conveyed to hydrolyzers and a feather meal dryer. The solids are screened and ground before storage in a feather meal silo before loadout. Conveying systems are enclosed and not considered a significant source of emissions. Water removed during the hydrolyzing process will discharge to the wastewater treatment system. Other process vapors will discharge to the multi-stage evaporator before ultimately discharging to the Air Washer and RTO as described below.

Blood Processing

Blood will be pumped from tanker trailers into storage tanks. The blood will be processed using coagulators and decanters to recover the solids. The solids will be combined with the feather meal. The moisture removed is discharged to the wastewater treatment system prior to discharge to the POTW. Non-condensable vapors will discharge to the Air Washer and RTO.

Pilgrim's Pride Corporation
Gadsden, AL Animal Feed Ingredients
Project Narrative

SPN Processing

SPN will be pumped from tanker trailers into storage tanks. The SPN will be screened, cooked and centrifuged to recover materials (i.e., fat) which will be blended into finished products. Non-condensable vapors will discharge to the Air Washer and RTO.

Chicken Meal Processing (Future Process)

The Facility is designed to add a future process referred to as the chicken meal processing line. The process will be similar to the byproduct processing but will produce finished meals and fats that are marketed differently. Non-condensable vapors from this process will be exhausted to the Air Washer and RTO, as these air pollution control devices will be sized to handle this future expansion.

Finished Product Storage and Loadout Operations

Finished meal and fat storage silos/tanks will be vented using pressure/vacuum tank hatches. The hatches remain closed except to open briefly to release excess pressure. The hatches are designed to open at a set point pressure. The storage silos/tanks are not considered significant sources of emissions. The Facility will have two loadout bays: one for poultry fat and one for finished meals. The loadout bays are enclosed buildings except for the truck entrance and exit (similar to a car wash that a truck enters on one side and exits through the other side). All finished meals (both feather meals and poultry meals) will be loaded in the same bay. A truck will drive-in the loadout bay, finished meals will drop out of loadout spouting into the top of the truck, and the truck will drive-out. Loading of finished meals is a potential source of fugitive PM emissions, but will be generally controlled via the building enclosure. The meals will have a significant moisture content (5%-15%) which reduces the potential for airborne "fines" from loadout operations.

Fat will be loaded in fat loadout bay. Fat is loaded into tanker type trailers. Fat loadout operations are not considered a significant source of emissions.

Air Washer and RTO

Pilgrim's plans to install one (1) regenerative thermal oxidizer (RTO #1) to provide control of VOCs and odors produced during rendering operations. Prior to the RTO, the air will be treated by an Air Washer to maximize RTO operation and pollutant control. The Air Washer is a water spray chamber which uses water spray to "knock-down" particulate and other potential pollutants. The water is discharged to the onsite wastewater treatment system. The design water flow rate through the Air Washer is 200 gpm. The design airflow rate of the RTO is 15,000 scfm.

The RTO will provide removal of VOCs (and associated odors), however it is anticipated the RTO will generate emissions of SO_2 and NOx due to oxidation of sulfur compounds (e.g., hydrogen sulfide and other sulfur containing organic compounds) and nitrogenous compounds (e.g., ammonia and amines). The RTO uses two ceramic media chambers which act as heat exchangers before/after the combustion chamber. Process exhaust will pass through ceramic chamber #1 (absorbing heat) prior to the combustion chamber and exhaust through media chamber #2 (releasing heat into the media). After several minutes, the process exhaust will be reversed and enter media chamber #2, pass through the combustion chamber, before exhausting through media chamber #1. The process exhaust will be cycled every several minutes to keep the ceramic heat

exchangers performing at optimum energy transfer (efficiency). The direction of the airflow is controlled by a set of valves below each media chamber. The combustion chamber is set to a fixed temperature and controlled by a 2.4 mmBtu/hr burner. The burner will fire exclusively natural gas.

Discussion of Back-Up and/or Bypass Operation

In the event that the RTO is down for maintenance or other reason, the airflows from the Air Washer will be diverted through a building air packed-bed scrubber(s). Pilgrim's is requesting an allowance for up to 150 hours per year to utilize the packed-bed scrubbers for backup operation. The emissions from this 150 hour per year operating scenario are included in the **Attachment B - Emission Inventory**.

Packed-Bed Scrubbers (Building Air Scrubbers)

Pilgrim's plans to install three (3) packed bed scrubbers (Scrubber #1, Scrubber #2 and Scrubber #3). Scrubber #1 is designed at 100,000 scfm, Scrubber #2 is designed at 100,000 scfm and Scrubber #3 is designed for at 75,000 scfm to collectively treat approximately 275,000 cfm of plant building air. These Scrubbers will keep the production areas under a slight vacuum (negative air pressure) to prevent excessive fugitive emission releases at doorways and other openings. The scrubbers will control building ventilation air, treating it with a scrubbant solution before exhausting the building air to the atmosphere.

Boilers

Pilgrim's plans to install three (3) Boilers, each rated for 1,600 horsepower. The Boilers will have individual capacities of 66.958 mmBtu/hr each (facility-wide total of 200.88 mmBtu/hr) and fire exclusively natural gas as their fuel source. These boilers will provide the process heat and stream needed for processing operations. The Facility is preparing to only burn natural gas and this is considered appropriate emission control to limit GHG's.

Wastewater Treatment System

The Facility's wastewater treatment system is expected to be an insignificant source of fugitive emissions. The wastewater will first be treated a dissolved air flotation (DAF) unit which removes much of the fat; the fat is returned to the process. After the DAF, biological treatment using lagoons will occur before discharging to the local POTW.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (AIR DIVISION)

Do not Write in This Space

Facility Number 307 - 0051

CONSTRUCTION/OPERATING PERMIT APPLICATION FACILITY IDENTIFICATION FORM

1. **Name of Facility, Firm, or Institution:** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

Facility Physical Location Address

Street & Number: 3900 Steele Station Road

City: Gadsden **County:** Etowah **Zip:** 35906

Facility Mailing Address (If different from above)

Address or PO Box:

City: **State:** **Zip:**

Owner's Business Mailing Address

2. **Owner:** Pilgrim's Pride Corporation

Street & Number: 1770 Promontory Circle **City:** Greeley

State: Colorado **Zip:** 80634 **Telephone:** (970) 506-8000

Responsible Official's Business Mailing Address

3. **Responsible Official:** Mark Glover **Title:** Head of By Product/MSC

Street & Number: 1770 Promontory Circle

City: Greeley **State:** Colorado **Zip:** 80634

Telephone Number: (970) 767-0292 **E-mail Address:** mark.glover@pilgrims.com

Plant Contact Information

4. **Plant Contact:** Barry Griffith **Title:** Project Manager

Telephone Number: (479) 263 - 9611 **E-mail Address:** barry.griffith@pilgrims.com

5. **Location Coordinates:**

UTM 583617 **E-W** 3758171 **N-S**

Latitude/Longitude 33.960733 **LAT** -86.094972 **LONG**

6. Permit application is made for:

- ☐ Existing source (initial application)
- ☐ Existing source (permit renewal)
- ☐ Modification
- ☑ New source (to be constructed)
- ☐ Change of ownership
- ☐ Change of location
- ☐ Other (specify) _____

If application is being made to construct or modify, please provide the name and address of installer or contractor

To be determined.

_____

Telephone _____

Date construction/modification to begin Early 2021 to be completed Fall 2022

7. Permit application is being made to obtain the following type permit:

- ☑ Air permit
- ☑ Major source operating permit
- ☐ Synthetic minor source operating permit
- ☐ General permit

8. Indicate the number of each of the following forms attached and made a part of this application: (if a form does not apply to your operation indicate "N/A" in the space opposite the form). Multiple forms may be used as required.

4	ADEM 104 - INDIRECT HEATING EQUIPMENT
2	ADEM 105 - MANUFACTURING OR PROCESSING OPERATION
	ADEM 106 - REFUSE HANDLING, DISPOSAL, AND INCINERATION
	ADEM 107 - STATIONARY INTERNAL COMBUSTION ENGINES
1	ADEM 108 - LOADING, STORAGE & DISPENSING LIQUID & GASEOUS ORGANIC COMPOUNDS
	ADEM 109 - VOLATILE ORGANIC COMPOUND SURFACE COATING EMISSION SOURCES
4	ADEM 110 - AIR POLLUTION CONTROL DEVICE
	ADEM 112 - SOLVENT METAL CLEANING
	ADEM 438 - CONTINUOUS EMISSION MONITORS
	ADEM 437 - COMPLIANCE SCHEDULE

9. General nature of business: (describe and list appropriate standard industrial classification (SIC) and North American Industry Classification System (NAICS) (www.naics.com) code(s)):

2077 Rendering Poultry By-Products

311613 Rendering and Meat By-Product Processing

10. **For those making application for a synthetic minor or major source operating permit, please summarize each pollutant emitted and the potential facility-wide annual emission rate for the pollutant. Indicate those pollutants for which the facility is major.**

Regulated pollutant	Potential Emissions* (tons/year)	Major source? yes/no

See Attachment B for emissions information.

***Potential emissions are either the maximum allowed by the regulations or by permit, or, if there is no regulatory limit, it is the emissions that occur from continuous operation at maximum capacity.**

11. **For those applying for a major source operating permit, indicate the compliance status by program for each emission unit or source and the method used to determine compliance. Also cite the specific applicable requirement.**

Emission unit or source: _____
(description)

Emission Point No.	Pollutant[4]	Standard	Program[1]	Method used to determine compliance	Compliance Status	
					IN[2]	OUT[3]
R1	VOC	N/A	N/A	Routine monitoring of APCD	Yes	
R1	PM	ADEM Code 335-3-4-.04(1)	SIP Regulation	Production record keeping	Yes	
R1	SOx	ADEM Code 335-3-5-.05	SIP Regulation	Routine monitoring of APCD	Yes	
B1, B2, B3	PM/SO2	Sulfur content of fuel	40 CFR 60, Subpart Dc	Measure fuel use/record keeping	Yes	
B1, B2, B3	PM	ADEM Code 335-3-4(.03)	SIP Regulation	Boiler design and proper operation	Yes	
B1, B2, B3	SOx	ADEM Code 335-3-5-.01(1)(b)	Sip Regulation	Boiler design and proper operation	Yes	
				APCD = air pollution control device		

[1]**PSD, non-attainment NSR, NSPS, NESHAP (40 CFR Part 61), NESHAP (40 CFR Part 63), accidental release (112(r)),SIP regulation, Title IV, Enhanced Monitoring, Title VI, Other (specify)**

[2]**Attach compliance plan**

[3]**Attach compliance schedule (ADEM Form-437)**

[4]**Fugitive emissions must be included as separate entries**

12. **List all insignificant activities and the basis for listing them as such (i.e., less than the insignificant activity thresholds or on the list of insignificant activities). Attach any documentation needed, such as calculations. No unit subject to an NSPS, NESHAP or MACT standard can be listed as insignificant.**

Insignificant Activity	Basis

Please see Attachment I. Applicable activities determination based on comprehensive ADEM list of Trivial and Insignificant Activities dated September 23, 2009.

13. **List and explain any exemptions from applicable requirements the facility is claiming:**

a.

b.

c.

d.

e.

f.

g.

h.

i.

14. **List below other attachments that are a part of this application(all supporting engineering calculations must be appended):**

a. Attachment A - Location Map

b. Attachment B - Emission Inventory (Public and Confidential Versions)

c. Attachment C - Process Air Flow Diagram

d. Attachment D - Site Plan

e. Attachment E - Manufacturer Information

f. Attachment F - Emission Factors and References (Public and Confidential Versions)

g. Attachment G - Federal and State Regulations

h. Attachment H - Compliance Plan and Certification

i. Attachment I - Trivial and Insignificant Activities List

I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMPLETE.

I ALSO CERTIFY THAT THE SOURCE WILL CONTINUE TO COMPLY WITH APPLICABLE REQUIREMENTS FOR WHICH IT IS IN COMPLIANCE, AND THAT THE SOURCE WILL, IN A TIMELY MANNER, MEET ALL APPLICABLE REQUIREMENTS THAT WILL BECOME EFFECTIVE DURING THE PERMIT TERM AND SUBMIT A DETAILED SCHEDULE, IF NEEDED FOR MEETING THE REQUIREMENTS.

	Head of Products	7/30/20
SIGNATURE OF RESPONSIBLE OFFICIAL	**TITLE**	**DATE**

PERMIT APPLICATION
FOR
INDIRECT HEATING EQUIPMENT
(FUEL BURNING EQUIPMENT)

			-					-				

Do not write in this space

1. **Name of facility or organization:** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Unit Description (i.e. No. 1 Power Boiler):** Regenerative Thermal Oxidizer (RTO) Combustion

Equipment manufacturer's information

Name of manufacturer: TANN Corporation

Model number: TR1595C

Rated capacity-input: 2.4 **(MMBtu/hr.)**

Boiler type: ☐ Fire tube ☐ Water tube ☑ other(specify): Thermal Oxidizer

Manufactured date: 2021/2022

Proposed installation date: Early 2022

Original installation date (if existing):

Reconstruction or Modification date (if applicable):

3. **Type of fuel used:**

Primary:

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas	1,020	Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

Standby: Not Applicable

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas		Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

4. **Purpose (if multipurpose, note percent in each use category):**

☐ **Space heat** ____ % ☐ **Power generation** ____ % ☑ **Process heat** 100 %

Other (specify): Fire RTO to keep consistent thermal oxidation temperature for proper operation.

5. **Normal schedule of operation:**

Hours per day: 24 **Days per week:** 7 **Weeks per year:** 52

6. **For each regulated pollutant, describe any limitations on source operation which affects emissions or any work practice standard (attach additional page if necessary):**

7. **Fugitive Emissions (attach calculation worksheets):**

POLLUTANT	POTENTIAL EMISSIONS		BASIS OF CALCULATION	REGULATORY EMISSION LIMIT	REGULATORY EMISSION LIMIT
	lb/hr	t/yr		(lb/hr)	(in units of standard)
Particulate					
Sulfur dioxide					
Nitrogen oxides					
Carbon monoxide					
VOC's					
Other					

8. **Is there any emission control equipment on this emission source?**

☑ **Yes** ☐ **No (If "yes", complete ADEM Form 110)**

*This RTO is air pollution control equipment.

9. Point Emissions (attach calculation worksheets):

POLLUTANT	POTENTIAL EMISSIONS lb/hr	POTENTIAL EMISSIONS t/yr	BASIS OF CALCULATION	REGULATORY EMISSION LIMIT (lb/hr)	REGULATORY EMISSION LIMIT (in units of standard)
Particulate	See Attachment A - Emissions Inventory		Burning natural gas	2.25	0.94 lb/mmBtu
Sulfur dioxide			Burning natural gas	9.6	4 lb/mmBtu
Nitrogen oxides			Burning natural gas		
Carbon monoxide			Burning natural gas		
VOC's			Burning natural gas		
Other			Burning natural gas		
			*Emissions from combustion only.		

10. Stack data:

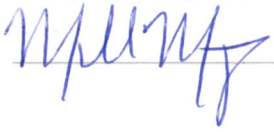
UTM Coordinate (E-W)	583323	(km)	UTM Coordinate (N-S)	3758359	(km)
Latitude	33.962450	(LAT)	Longitude	-86.098135	(LONG)
Height above grade	60	(feet)	Gas temperature at exit	< or = 50	(°F)
Inside diameter at exit (round)	2.5	(feet)	Gas Velocity	< or = 63	(Ft/Sec)
Inside area at exit (not round)		(sq. feet)	Volume of gas discharged	< or = 18,470	(ACFM)
Base Elevation	550	(feet)	GEP Stack Height		(feet)

Are sampling ports available? ☐ Yes ☐ No (If "yes", describe. Draw on separate sheet if necessary):

11. Is this item in compliance with all applicable air pollution rules and regulations?

☑ Yes ☐ No (if "no", a compliance schedule, ADEM Form 437, must be attached.)

Name of person preparing application: Melinda Mangiaracina - WHEE, Inc.

Signature:  Date: 7/28/2020

PERMIT APPLICATION
FOR
INDIRECT HEATING EQUIPMENT
(FUEL BURNING EQUIPMENT)

			-					-				

Do not write in this space

1. **Name of facility or organization:** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Unit Description (i.e. No. 1 Power Boiler):** Boiler #1 (1,600 Hp)

Equipment manufacturer's information

Name of manufacturer: Victory Energy

Model number: F2-WB-1600-S165

Rated capacity-input: 66.958 **(MMBtu/hr.)**

Boiler type: ☑ Fire tube ☐ Water tube ☐ other(specify): _____

Manufactured date: 2021/2022

Proposed installation date: Early 2022

Original installation date (if existing): _____

Reconstruction or Modification date (if applicable): _____

3. **Type of fuel used:**

Primary:

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas	1,020	Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

Standby: Not Applicable

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas		Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

4. **Purpose (if multipurpose, note percent in each use category):**

☐ Space heat _____ % ☐ Power generation _____ % ☑ Process heat 100 %

Other (specify): _____

5. **Normal schedule of operation:**

Hours per day: 24 Days per week: 7 Weeks per year: 52

6. **For each regulated pollutant, describe any limitations on source operation which affects emissions or any work practice standard (attach additional page if necessary):**

Preparing to only burn natural gas and this is considered appropriate emission control to limit GHG's.

7. **Fugitive Emissions (attach calculation worksheets):**

POLLUTANT	POTENTIAL EMISSIONS		BASIS OF CALCULATION	REGULATORY EMISSION LIMIT	REGULATORY EMISSION LIMIT
	lb/hr	t/yr		(lb/hr)	(in units of standard)
Particulate					
Sulfur dioxide					
Nitrogen oxides					
Carbon monoxide					
VOC's					
Other					

8. **Is there any emission control equipment on this emission source?**

☐ Yes ☑ No (If "yes", complete ADEM Form 110)

9. **Point Emissions (attach calculation worksheets):**

POLLUTANT	POTENTIAL EMISSIONS lb/hr	POTENTIAL EMISSIONS t/yr	BASIS OF CALCULATION	REGULATORY EMISSION LIMIT (lb/hr)	REGULATORY EMISSION LIMIT (in units of standard)
Particulate				14.53 lb/hr ADEM Regulation 335-3-4-.03	0.217 lb/mmBTU ADEM Regulation 335-3-4-.03
Sulfur dioxide				267.8 lb/hr ADEM Regulation 335-3-5-.01(b)	4.0 lb/mmBTU ADEM Regulation 335-3-5-.01(b)
Nitrogen oxides					
Carbon monoxide					
VOC's					
Other					

See Attachment A - Emissions Inventory

10. **Stack data:**

UTM Coordinate (E-W)	583398	**(km)**	**UTM Coordinate (N-S)**	3758401	**(km)**
Latitude	33.962820	**(LAT)**	**Longitude**	-86.097327	**(LONG)**
Height above grade	≈ 30	**(feet)**	**Gas temperature at exit**	< or = 350	**(°F)**
Inside diameter at exit (round)	≈ 30	**(feet)**	**Gas Velocity**	≈ 46	**(Ft/Sec)**
Inside area at exit (not round)		**(sq. feet)**	**Volume of gas discharged**	≈ 19,602	**(ACFM)**
Base Elevation	550	**(feet)**	**GEP Stack Height**		**(feet)**

Are sampling ports available? ☐ **Yes** ☑ **No** **(If "yes", describe. Draw on separate sheet if necessary):**

11. **Is this item in compliance with all applicable air pollution rules and regulations?**

☑ **Yes** ☐ **No (if "no", a compliance schedule, ADEM Form 437, must be attached.)**

Name of person preparing application: Melinda Mangiaracina - WHEE, Inc.

Signature: [signature] **Date:** 7/28/2020

PERMIT APPLICATION
FOR
INDIRECT HEATING EQUIPMENT
(FUEL BURNING EQUIPMENT)

			-				-				

Do not write in this space

1. **Name of facility or organization:** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Unit Description (i.e. No. 1 Power Boiler):** Boiler #2 (1,600 Hp)

Equipment manufacturer's information

Name of manufacturer: Victory Energy

Model number: F2-WB-1600-S165

Rated capacity-input: 66.958 **(MMBtu/hr.)**

Boiler type: ☑ Fire tube ☐ Water tube ☐ other(specify): _____

Manufactured date: 2021/2022

Proposed installation date: Early 2022

Original installation date (if existing): _____

Reconstruction or Modification date (if applicable): _____

3. **Type of fuel used:**

Primary:

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas	1,020	Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

Standby: Not Applicable

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas		Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

4. Purpose (if multipurpose, note percent in each use category):

☐ Space heat _____ % ☐ Power generation _____ % ☑ Process heat 100 %

Other (specify): _____

5. Normal schedule of operation:

Hours per day: 24 Days per week: 7 Weeks per year: 52

6. For each regulated pollutant, describe any limitations on source operation which affects emissions or any work practice standard (attach additional page if necessary):

Preparing to only burn natural gas and this is considered appropriate emission control to limit GHG's.

7. Fugitive Emissions (attach calculation worksheets):

POLLUTANT	POTENTIAL EMISSIONS		BASIS OF CALCULATION	REGULATORY EMISSION LIMIT	REGULATORY EMISSION LIMIT
	lb/hr	t/yr		(lb/hr)	(in units of standard)
Particulate					
Sulfur dioxide					
Nitrogen oxides					
Carbon monoxide					
VOC's					
Other					

8. Is there any emission control equipment on this emission source?

☐ Yes ☑ No (If "yes", complete ADEM Form 110)

9. Point Emissions (attach calculation worksheets):

POLLUTANT	POTENTIAL EMISSIONS lb/hr	POTENTIAL EMISSIONS t/yr	BASIS OF CALCULATION	REGULATORY EMISSION LIMIT (lb/hr)	REGULATORY EMISSION LIMIT (in units of standard)
Particulate				14.53 lb/hr ADEM Regulation 335-3-4-.03	0.217 lb/mmBTU ADEM Regulation 335-3-4-.03
Sulfur dioxide				267.8 lb/hr ADEM Regulation 335-3-5-.01(b)	4.0 lb/mmBTU ADEM Regulation 335-3-5-.01(b)
Nitrogen oxides					
Carbon monoxide					
VOC's					
Other					

See Attachment A - Emissions Inventory

10. Stack data:

UTM Coordinate (E-W)	583398	(km)	UTM Coordinate (N-S)	3758395	(km)
Latitude	33.962772	(LAT)	Longitude	-86.097327	(LONG)
Height above grade	≈ 30	(feet)	Gas temperature at exit	< or = 350	(°F)
Inside diameter at exit (round)	≈ 30	(feet)	Gas Velocity	≈ 46	(Ft/Sec)
Inside area at exit (not round)		(sq. feet)	Volume of gas discharged	≈ 19,602	(ACFM)
Base Elevation	550	(feet)	GEP Stack Height		(feet)

Are sampling ports available? ☐ Yes ☑ No (If "yes", describe. Draw on separate sheet if necessary):

11. Is this item in compliance with all applicable air pollution rules and regulations?

☑ Yes ☐ No (if "no", a compliance schedule, ADEM Form 437, must be attached.)

Name of person preparing application: Melinda Mangiaracina - WHEE, Inc.

Signature: Melinda M Date: 7/28/2020

PERMIT APPLICATION
FOR
INDIRECT HEATING EQUIPMENT
(FUEL BURNING EQUIPMENT)

			-				-				

Do not write in this space

1. **Name of facility or organization:** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Unit Description (i.e. No. 1 Power Boiler):** Boiler #3 (1,600 Hp)

Equipment manufacturer's information

Name of manufacturer: Victory Energy

Model number: F2-WB-1600-S165

Rated capacity-input: 66.958 **(MMBtu/hr.)**

Boiler type: ☑ Fire tube ☐ Water tube ☐ other(specify): _____

Manufactured date: 2021/2022

Proposed installation date: Early 2022

Original installation date (if existing): _____

Reconstruction or Modification date (if applicable): _____

3. **Type of fuel used:**

Primary:

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas	1,020	Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

Standby: Not Applicable

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas		Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

4. **Purpose (if multipurpose, note percent in each use category):**

☐ Space heat _____ % ☐ Power generation _____ % ☑ Process heat 100 %

Other (specify): _____

5. **Normal schedule of operation:**

Hours per day: 24 Days per week: 7 Weeks per year: 52

6. **For each regulated pollutant, describe any limitations on source operation which affects emissions or any work practice standard (attach additional page if necessary):**

Preparing to only burn natural gas and this is considered appropriate emission control to limit GHG's.

7. **Fugitive Emissions (attach calculation worksheets):**

POLLUTANT	POTENTIAL EMISSIONS		BASIS OF CALCULATION	REGULATORY EMISSION LIMIT	REGULATORY EMISSION LIMIT
	lb/hr	t/yr		(lb/hr)	(in units of standard)
Particulate					
Sulfur dioxide					
Nitrogen oxides					
Carbon monoxide					
VOC's					
Other					

8. **Is there any emission control equipment on this emission source?**

☐ Yes ☑ No (If "yes", complete ADEM Form 110)

9. **Point Emissions (attach calculation worksheets):**

POLLUTANT	POTENTIAL EMISSIONS lb/hr	POTENTIAL EMISSIONS t/yr	BASIS OF CALCULATION	REGULATORY EMISSION LIMIT (lb/hr)	REGULATORY EMISSION LIMIT (in units of standard)
Particulate				14.53 lb/hr ADEM Regulation 335-3-4-.03	0.217 lb/mmBTU ADEM Regulation 335-3-4-.03
Sulfur dioxide				267.8 lb/hr ADEM Regulation 335-3-5-.01(b)	4.0 lb/mmBTU ADEM Regulation 335-3-5-.01(b)
Nitrogen oxides					
Carbon monoxide					
VOC's					
Other					

See Attachment A - Emissions Inventory

10. **Stack data:**

UTM Coordinate (E-W)	583398	**(km)**	**UTM Coordinate (N-S)**	3758390	**(km)**
Latitude	33.962725	**(LAT)**	**Longitude**	-86.097327	**(LONG)**
Height above grade	≈ 30	**(feet)**	**Gas temperature at exit**	< or = 350	**(°F)**
Inside diameter at exit (round)	≈ 30	**(feet)**	**Gas Velocity**	≈ 46	**(Ft/Sec)**
Inside area at exit (not round)		**(sq. feet)**	**Volume of gas discharged**	≈ 19,602	**(ACFM)**
Base Elevation	550	**(feet)**	**GEP Stack Height**		**(feet)**

Are sampling ports available? ☐ **Yes** ☑ **No** **(If "yes", describe. Draw on separate sheet if necessary):**

11. **Is this item in compliance with all applicable air pollution rules and regulations?**

☑ **Yes** ☐ **No (if "no", a compliance schedule, ADEM Form 437, must be attached.)**

Name of person preparing application: Melinda Mangiaracina - WHEE, Inc.

Signature: [signature] **Date:** 7/28/2020

PUBLIC/REDACTED

PERMIT APPLICATION
FOR
MANUFACTURING OR PROCESSING OPERATION

			-					-			

Do not write in this space

1. **Name of firm or organization:** Pilgrim's Pride Corporation – Gadsden Animal Feed Ingredients Plant

2. **Briefly describe the operation of this unit or process in your facility: (separate forms are to be submitted for each type of process or for multiple units of one process type. If the unit or process receives input material from, or provides input material to, another operation, please indicate the relationship between the operations.) An application should be completed for each alternative operating scenario.**

Operating scenario number Animal Feed Ingredient Processing

The Facility will receive raw chicken meat, bones, feathers, blood and secondary protein nutrients (SPN) via truck. SPN is oil/grease recovered from wastewater pretreatment operations at poultry processing facilities. The raw materials will be processed through cooking and drying processes to recover proteins and fats to produce the following finished products: poultry meals, poultry fat and feather meal. These end products will be loaded onto trucks and shipped offsite to animal feed manufacturers. The process heat used in cooking and drying operations will be provided by onsite natural gas fired boilers.

Various air ducts will be connected to operations/units that are considered high intensity odor sources. These air ducts will join and be pulled through an Air Washer (spray tower) and an RTO for removal of odorous compounds and other pollutants. Noncondensable process vapors (i.e., the moisture removed from heating the byproducts) will also discharge to the Air Washer and RTO for treatment.

Attachment C is a process flow diagram that shows the processes and emission units that discharge through the Air Washer and RTO.

Three (3) Building Air Scrubbers will be used to treat building air. All three building air scrubbers are packed bed type (Scrubber #1 – 100,000 SCFM; Scrubber #2 –100,000 SCFM; Scrubber #3 –75,000 SCFM).

In the event of RTO failure or maintenance, Pilgrim's is requesting an allowance of up to 150 hours/year for the high intensity odors and noncondensable vapors stream to be exhausted through the Building Air Scrubbers (as opposed to the RTO).

The emissions estimates include a chicken meal line that is proposed to be installed in the future.

3. **Type of unit or process (e.g., calcining kiln, cupola furnace):** Various heat and pressure intensive processes, including cookers, presses, centrifuges, etc.

Make: Various **Model:** Various

Rated process capacity (manufacturer's or designer's guaranteed maximum) in pounds/hour: [redacted]

Manufactured date: 2021/2022 **Proposed installation date:** 2022

Original installation date (if existing):

Reconstruction or Modification date (if applicable): N/A

4. **Normal operating schedule:**

Hours per day: 24 **Days per week:** 5-6 **Weeks per year:** 52

Peak production season (if any):

PUBLIC/REDACTED

5. **Materials (feed input) used in unit or process (include solid fuel materials used, if any):**

Material	Process Rate Average (lb/hr)	Maximum (lb/hr)	Quantity tons/year
Poultry Offal, Meat, Bones	[redacted]		
Poultry Blood			
Poultry Feathers			
SPN/Sludge			
Poultry Offal, Meat, Bones (Future Expansion			

6. **Total heat input capacity of process heating equipment (exclude fuel used by indirect heating equipment previously described on Form ADEM-104):_____MMBtu/hr**

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas		Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

7. **Products of process or unit:**

Products	Quantity/year	Units of production
Finished Meals (includes future expansion)	[redacted]	Tons
Finished Fat (includes future expansion)	[redacted]	Tons

8. **For each regulated pollutant, describe any limitations on source operation which affects emissions or any work practice standard (attach additional page if necessary):**

Process vapors and fugitive emission from high intensity sources are to be ducted to the RTO for odor/VOC control. If RTO is down, then Building Air Scrubbers will serve as backup odor and emissions control device.

9. **Is there any emission control equipment on this emission source?**

☒Yes ☐No **(Where a control device exists, Form ADEM-110 must be completed and attached).**

PUBLIC/REDACTED

10. Air contaminant emission points: (Each point of emission should be listed separately and numbered so that it can be located on the attached flow diagram):

Emission Point	Stack											
	UTM Coordinates		Geographic Coordinates		Height Above Grade (Feet)	GEP Stack Height (Feet)	Base Elevation (Feet)	Inside Diameter for Round Opening (Feet)	Inside Area if NOT Round Opening (sq. feet)	Gas Exit Velocity (Feet/Sec)	Volume of Gas Discharged (ACFM)	Exit Temperature (°F)
	E-W (km)	N-S (km)	LAT	LONG								
RTO1	583319	3758356	33.96247	-86.09817	60		550	2.5		63	18,470	< 250
S1	583368	3758376	33.96260	-86.09765	65		550	6.7		≈48	≈100,000	≈ 90
S2	583362	3758379	33.96262	-86.09772	65		550	6.7		≈48	≈100,000	≈ 90
S3	583392	3758352	33.96238	-86.09739	65		550	5.67		≈50	≈75,000	≈ 90

*** Std temperature is 68°F - Std pressure is 29.92" in Hg.**

PUBLIC/REDACTED

11. **Air contaminants emitted: Basis of estimate (material balance, stack test, emission factor, etc.) must be clearly indicated on calculations appended to this form. Fugitive emissions must be included and calculations must be appended.**

Emission Point	Pollutants	Potential Emissions			Regulatory Emission Limit	
		(lb/hr)	(Tons/yr)	Basis of Calculation	(lb/hr)	(units of standard)
R1	See Attachment B					

12. **Using a flow diagram:**

    (1) **Illustrate input of raw materials,**

    (2) **Label production processes, process fuel combustion, process equipment and air pollution control equipment,**

    (3) **Illustrate locations of air contaminant release so that emission points under item 10 can be identified.**

☒ **(Check box if extra pages are attached)**

Process flow diagram

13. Is this unit or process in compliance with all applicable air pollution rules and regulations?

☒Yes ☐No

(if "no", a compliance schedule, Form ADEM-437 must be completed and attached.)

14. Does the input material or product from this process or unit contain finely divided materials which could become airborne?

☒Yes ☐No

15. If "yes", is this material stored in piles or in some other facility as to make possible the creation of fugitive dust problems?

☐Yes ☒No

List storage piles or other facility (if any): N/A

Type of material	Particle size (diameter or screen size)	Pile size or facility (average tons)	Methods utilized to control fugitive emissions (wetted, covered, etc.)

Name of person preparing application: Melinda Mangiaracina - WHEE, Inc.

Signature: [signature] Date: 7/28/2020

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION

FOR

AIR POLLUTION CONTROL DEVICE

☐☐☐ - ☐☐☐☐ - ☐☐☐☐
(ADEM Use Only)

1. **Name of facility or organization** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Type of pollution control device: (if more than one, check each; however, separate forms are to be submitted for each specific device.)**

☐ Settling chamber	☐ Electrostatic precipitator
☐ Afterburner	☐ Baghouse
☐ Cyclone	☐ Multiclone
☐ Absorber	☐ Adsorber
☐ Condenser	☑ Wet Suppression

Wet scrubber (kind): _____

Stage 1 - Vapor balance (type): _____

Other (describe): Air Washer (spray tower using water without chemical scrubbant)

3. **Control device manufacturer's information:**

Name of manufacturer TANN **Model No.** See Attachment E

4. **Emission source to which device is installed or is to be installed:**

Plant rendering operations, the air washer pretreats operating plant vapors prior to the RTO (RTO 1).

5. **Emission parameters:**

	Pollutants Removed		
	Pollutant #1	**Pollutant #2**	**Pollutant #3**
	TRS	Nitrogen Compounds	PM
Mass emission rate (#/hr)			
Uncontrolled	Pretreats vapors prior to RTO		
Designed			
Manufacturer's guaranteed			
Mass emission rate (Expressed as units of standard)			
Required by regulation			
Manufacturer's guaranteed			
Removal efficiency (%)			
Designed	46%	33%	34%
Manufacturer's guaranteed			

6. Gas conditions:

	Inlet	Intermediate Locations	Outlet
Volume (SDCFM, 68°f, 29.92" hg)	≈ 15,000		≈ 15,000
(ACFM, existing conditions)	≈ 16,750		≈ 16, 050
Temperature (°F)	≈ 130		≈ 105
Velocity (ft/sec)			
Percent moisture	Saturated		Saturated

Pressure drop across device: 1-6 (inches H_20)

7. Stack dimensions:

UTM Coordinate (E-W)	583323	(km)	UTM Coordinate (N-S)	3758359	(km)
Latitude	33.962450	(LAT)	Longitude	-86.098135	(LONG)
Height above grade	25	(feet)	Gas temperature at exit	N/A	(°F)
Inside diameter at exit (round)	2.67	(feet)	Gas Velocity		(Ft/Sec)
Inside area at exit (not round)		(sq. feet)	Volume of gas discharged	N/A	(ACFM)
Base Elevation	550	(feet)	GEP Stack Height		(feet)

8. Provide a flow diagram which includes gas exit from process, each control device, location of by-pass, fan or blower, each emission point, exits for collected pollutants, and location of sampling ports.

9. Enclosed are:

- ☐ Blueprints
- ☑ Manufacturer's literature
- ☐ Emissions test of existing installation
- ☐ Other
- ☐ Particle size distribution report
- ☐ Size-efficiency curves
- ☐ Fan curves

10. If the pollution control device is of unusual design, please provide a sketch of the device.

11. List below the important operating parameters for the device. (For example: air/cloth ratio and fabric type, weight, and weave for baghouse; throat velocity and water use rate for a venturi scrubber; etc.)

Minimum water recirculation flow rate of 150 - 200 gpm

12. By-pass (if any) is to be used when:

N/A

13. Disposal of collected air pollutants: N/A

	Solid waste	Solid waste	Liquid waste	Liquid waste
Volume				
Composition				
Is waste hazardous?				
Method of disposal				
Final destination				

If collected air pollutants are recycled, describe:

N/A

Name of person preparing application Melinda Mangiaracina - WHEE, Inc.

Signature _____ **Date** 7/28/2020

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION

FOR

AIR POLLUTION CONTROL DEVICE

☐☐☐ - ☐☐☐☐ - ☐☐☐☐

(ADEM Use Only)

1. **Name of facility or organization** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Type of pollution control device: (if more than one, check each; however, separate forms are to be submitted for each specific device.)**

☐ Settling chamber	☐ Electrostatic precipitator
☐ Afterburner	☐ Baghouse
☐ Cyclone	☐ Multiclone
☐ Absorber	☐ Adsorber
☐ Condenser	☐ Wet Suppression

Wet scrubber (kind): _____

Stage 1 - Vapor balance (type): _____

Other (describe): Regenerative Thermal Oxidizer (RTO 1)

3. **Control device manufacturer's information:**

Name of manufacturer TANN Corporation **Model No.** TR1595C

4. **Emission source to which device is installed or is to be installed:**

Animal feed ingredient processing

5. **Emission parameters:**

	Pollutants Removed		
	Pollutant #1	**Pollutant #2**	**Pollutant #3**
	VOC	TRS to SO2	N to NO2
Mass emission rate (#/hr)			
Uncontrolled			
Designed	3.36	1.18	0.96
Manufacturer's guaranteed	< 3.36		
Mass emission rate (Expressed as units of standard)			
Required by regulation			
Manufacturer's guaranteed			
Removal efficiency (%)			
Designed	95%	95% oxidized to SO2.	50% of NH3 to oxidize to NO2.
Manufacturer's guaranteed	97%		

6. Gas conditions:

	Inlet	Intermediate Locations	Outlet
Volume (SDCFM, 68°f, 29.92" hg)	≈ 15,000		≈ 15,000
(ACFM, existing conditions)	≈ 16,050		≈ 20,300
Temperature (°F)	≈ 105		≈ 250
Velocity (ft/sec)	≈ 63		≈ 63
Percent moisture	Saturated		Saturated

Pressure drop across device: ≈ 20 (inches H_20)

7. Stack dimensions:

UTM Coordinate (E-W)	583323	(km)	UTM Coordinate (N-S)	3758359	(km)
Latitude	33.962450	(LAT)	Longitude	-86.098135	(LONG)
Height above grade	60	(feet)	Gas temperature at exit	< or = 219	(°F)
Inside diameter at exit (round)	2.5	(feet)	Gas Velocity	< or = 63	(Ft/Sec)
Inside area at exit (not round)		(sq. feet)	Volume of gas discharged	< or = 18,470	(ACFM)
Base Elevation	550	(feet)	GEP Stack Height		(feet)

8. Provide a flow diagram which includes gas exit from process, each control device, location of by-pass, fan or blower, each emission point, exits for collected pollutants, and location of sampling ports.

9. Enclosed are:

- ☐ Blueprints
- ☑ Manufacturer's literature
- ☐ Emissions test of existing installation
- ☐ Other
- ☐ Particle size distribution report
- ☐ Size-efficiency curves
- ☐ Fan curves

10. If the pollution control device is of unusual design, please provide a sketch of the device.

11. List below the important operating parameters for the device. (For example: air/cloth ratio and fabric type, weight, and weave for baghouse; throat velocity and water use rate for a venturi scrubber; etc.)

Operating temperature of combustion chamber = 1,400 °F - 1,600 °F.

12. By-pass (if any) is to be used when:

The packed-bed building air scrubbers are to be used when the RTO is down. Backup operation/by-pass is to be limited to 150 hours per year.

13. Disposal of collected air pollutants: N/A

	Solid waste	Solid waste	Liquid waste	Liquid waste
Volume				
Composition				
Is waste hazardous?				
Method of disposal				
Final destination				

If collected air pollutants are recycled, describe:

N/A

Name of person preparing application Melinda Mangiaracina - WHEE, Inc.

Signature _____ **Date** 7/28/2020

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION

FOR

AIR POLLUTION CONTROL DEVICE

[ ][ ][ ] - [ ][ ][ ][ ] - [ ][ ][ ][ ]
(ADEM Use Only)

1. **Name of facility or organization** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Type of pollution control device: (if more than one, check each; however, separate forms are to be submitted for each specific device.)**

☐ Settling chamber	☐ Electrostatic precipitator
☐ Afterburner	☐ Baghouse
☐ Cyclone	☐ Multiclone
☐ Absorber	☐ Adsorber
☐ Condenser	☐ Wet Suppression

Wet scrubber (kind): Packed-bed building air scrubber (Scrubber #1)

Stage 1 - Vapor balance (type):

Other (describe):

3. **Control device manufacturer's information:**

Name of manufacturer Rendeq, Inc. **Model No.** RASCU-100

4. **Emission source to which device is installed or is to be installed:**

Animal feed ingredient processing operations, the scrubber will treat building air prior to exhasting to atmosphere.

5. **Emission parameters:**

	Pollutants Removed		
	Pollutant #1	**Pollutant #2**	**Pollutant #3**
	H2S	VOC	PM10
Mass emission rate (#/hr)			
Uncontrolled			
Designed	≈ 0.076	≈ 10.6	≈ 0.77
Manufacturer's guaranteed	< 0.076	< 10.6	< 0.77
Mass emission rate (Expressed as units of standard)			
Required by regulation			
Manufacturer's guaranteed			
Removal efficiency (%)			
Designed	92.7%	26.6%	63.1%
Manufacturer's guaranteed	Based on Mt. Pleasant Stack Testing Data		

6. Gas conditions:

	Inlet	Intermediate Locations	Outlet
Volume (SDCFM, 68°f, 29.92" hg)	≈ 94,300		≈ 94,300
(ACFM, existing conditions)	≈ 100,000		≈ 98,200
Temperature (°F)	≈ 100		≈ 90
Velocity (ft/sec)	≈ 48		≈ 48
Percent moisture	Will Vary		Saturated

Pressure drop across device: 1-6 (inches H_20)

7. Stack dimensions:

UTM Coordinate (E-W)	583368	(km)	UTM Coordinate (N-S)	3758376	(km)
Latitude	33.962604	(LAT)	Longitude	-86.097648	(LONG)
Height above grade	65	(feet)	Gas temperature at exit	≈ 90	(°F)
Inside diameter at exit (round)	≈ 6.7	(feet)	Gas Velocity	≈ 48	(Ft/Sec)
Inside area at exit (not round)		(sq. feet)	Volume of gas discharged	≈ 100,000	(ACFM)
Base Elevation	550	(feet)	GEP Stack Height		(feet)

8. Provide a flow diagram which includes gas exit from process, each control device, location of by-pass, fan or blower, each emission point, exits for collected pollutants, and location of sampling ports.

9. Enclosed are:

- ☐ Blueprints
- ☑ Manufacturer's literature
- ☐ Emissions test of existing installation
- ☐ Other
- ☐ Particle size distribution report
- ☐ Size-efficiency curves
- ☐ Fan curves

10. If the pollution control device is of unusual design, please provide a sketch of the device.

11. List below the important operating parameters for the device. (For example: air/cloth ratio and fabric type, weight, and weave for baghouse; throat velocity and water use rate for a venturi scrubber; etc.)

Scrubbant/Water Recirculation Rate: 1,000 - 1,250 gpm

ORP of Scrubbant/Water: To Be Determined

12. By-pass (if any) is to be used when:

N/A

13. Disposal of collected air pollutants:

	Solid waste	Solid waste	Liquid waste	Liquid waste
Volume				
Composition				
Is waste hazardous?			No	
Method of disposal			Onsite WW treatment system w/ discharge to POTW	
Final destination				

If collected air pollutants are recycled, describe:

N/A

Name of person preparing application Melinda Mangiaracina - WHEE, Inc.

Signature _____ **Date** 7/28/2020

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION

FOR

AIR POLLUTION CONTROL DEVICE

☐☐☐ - ☐☐☐☐ - ☐☐☐☐
(ADEM Use Only)

1. **Name of facility or organization** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Type of pollution control device: (if more than one, check each; however, separate forms are to be submitted for each specific device.)**

☐ Settling chamber	☐ Electrostatic precipitator
☐ Afterburner	☐ Baghouse
☐ Cyclone	☐ Multiclone
☐ Absorber	☐ Adsorber
☐ Condenser	☐ Wet Suppression

Wet scrubber (kind): Packed-bed building air scrubber (Scrubber #2)

Stage 1 - Vapor balance (type):

Other (describe):

3. **Control device manufacturer's information:**

Name of manufacturer Rendeq, Inc. **Model No.** RASCU-100

4. **Emission source to which device is installed or is to be installed:**

Animal feed ingredient processing operations, the scrubber will treat building air prior to exhasting to atmosphere.

5. **Emission parameters:**

	Pollutants Removed		
	Pollutant #1	**Pollutant #2**	**Pollutant #3**
	H2S	VOC	PM10
Mass emission rate (#/hr)			
Uncontrolled			
Designed	≈ 0.076	≈ 10.6	≈ 0.77
Manufacturer's guaranteed	< 0.076	< 10.6	< 0.77
Mass emission rate (Expressed as units of standard)			
Required by regulation			
Manufacturer's guaranteed			
Removal efficiency (%)			
Designed	92.7%	26.6%	63.1%
Manufacturer's guaranteed	Based on Mt. Pleasant Stack Testing Data		

6. Gas conditions:

	Inlet	Intermediate Locations	Outlet
Volume (SDCFM, 68°f, 29.92" hg)	≈ 94,300		≈ 94,300
(ACFM, existing conditions)	≈ 100,000		≈ 98,200
Temperature (°F)	≈ 100		≈ 90
Velocity (ft/sec)	≈ 48		≈ 48
Percent moisture	Will Vary		Saturated

Pressure drop across device: 1-6 (inches H_20)

7. Stack dimensions:

UTM Coordinate (E-W)	583362	(km)	UTM Coordinate (N-S)	3758379	(km)
Latitude	33.962626	(LAT)	Longitude	-86.097716	(LONG)
Height above grade	65	(feet)	Gas temperature at exit	≈ 90	(°F)
Inside diameter at exit (round)	≈ 6.7	(feet)	Gas Velocity	≈ 48	(Ft/Sec)
Inside area at exit (not round)		(sq. feet)	Volume of gas discharged	≈ 100,000	(ACFM)
Base Elevation	550	(feet)	GEP Stack Height		(feet)

8. Provide a flow diagram which includes gas exit from process, each control device, location of by-pass, fan or blower, each emission point, exits for collected pollutants, and location of sampling ports.

9. Enclosed are:

- ☐ Blueprints
- ☑ Manufacturer's literature
- ☐ Emissions test of existing installation
- ☐ Other
- ☐ Particle size distribution report
- ☐ Size-efficiency curves
- ☐ Fan curves

10. If the pollution control device is of unusual design, please provide a sketch of the device.

11. List below the important operating parameters for the device. (For example: air/cloth ratio and fabric type, weight, and weave for baghouse; throat velocity and water use rate for a venturi scrubber; etc.)

Scrubbant/Water Recirculation Rate: 1,000 - 1,250 gpm

ORP of Scrubbant/Water: To Be Determined

12. By-pass (if any) is to be used when:

N/A

13. Disposal of collected air pollutants: N/A

	Solid waste	Solid waste	Liquid waste	Liquid waste
Volume				
Composition				
Is waste hazardous?			No	
Method of disposal			Onsite WW treatment system w/ discharge to POTW	
Final destination				

If collected air pollutants are recycled, describe:

N/A

Name of person preparing application Melinda Mangiaracina - WHEE, Inc.

Signature _____ **Date** 7/28/2020

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PERMIT APPLICATION

FOR

AIR POLLUTION CONTROL DEVICE

☐☐☐ - ☐☐☐☐ - ☐☐☐☐

(ADEM Use Only)

1. **Name of facility or organization** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Type of pollution control device: (if more than one, check each; however, separate forms are to be submitted for each specific device.)**

☐ Settling chamber	☐ Electrostatic precipitator
☐ Afterburner	☐ Baghouse
☐ Cyclone	☐ Multiclone
☐ Absorber	☐ Adsorber
☐ Condenser	☐ Wet Suppression

Wet scrubber (kind): Packed-bed building air scrubber (Scrubber #3)

Stage 1 - Vapor balance (type):

Other (describe):

3. **Control device manufacturer's information:**

Name of manufacturer Rendeq, Inc. **Model No.** RASCU-075

4. **Emission source to which device is installed or is to be installed:**

Animal feed ingredient processing, the scrubber will treat building air prior to exhasting to atmosphere.

5. **Emission parameters:**

	Pollutants Removed		
	Pollutant #1	**Pollutant #2**	**Pollutant #3**
	H2S	VOC	PM10
Mass emission rate (#/hr)			
Uncontrolled			
Designed	≈ 0.057	≈ 7.98	≈ 0.58
Manufacturer's guaranteed	< 0.057	< 7.98	< 0.58
Mass emission rate (Expressed as units of standard)			
Required by regulation			
Manufacturer's guaranteed			
Removal efficiency (%)			
Designed	92.7%	26.6%	63.1%
Manufacturer's guaranteed	Based on Mt. Pleasant Stack Testing Data		

6. Gas conditions:

	Inlet	Intermediate Locations	Outlet
Volume (SDCFM, 68°f, 29.92" hg)	≈ 70,700		≈ 70,700
(ACFM, existing conditions)	≈ 75,000		≈ 73,650
Temperature (°F)	≈ 100		≈ 90
Velocity (ft/sec)	≈ 50		≈ 50
Percent moisture	Will Vary		Saturated

Pressure drop across device: 1-6 (inches H_20)

7. Stack dimensions:

UTM Coordinate (E-W)	583392	(km)	UTM Coordinate (N-S)	3758352	(km)
Latitude	33.962381	(LAT)	Longitude	-86.097388	(LONG)
Height above grade	≈ 65	(feet)	Gas temperature at exit	≈ 90	(°F)
Inside diameter at exit (round)	≈ 5.67	(feet)	Gas Velocity	≈ 50	(Ft/Sec)
Inside area at exit (not round)		(sq. feet)	Volume of gas discharged	≈ 75,000	(ACFM)
Base Elevation	550	(feet)	GEP Stack Height		(feet)

8. Provide a flow diagram which includes gas exit from process, each control device, location of by-pass, fan or blower, each emission point, exits for collected pollutants, and location of sampling ports.

9. Enclosed are:

- ☐ Blueprints
- ☑ Manufacturer's literature
- ☐ Emissions test of existing installation
- ☐ Other
- ☐ Particle size distribution report
- ☐ Size-efficiency curves
- ☐ Fan curves

10. If the pollution control device is of unusual design, please provide a sketch of the device.

11. List below the important operating parameters for the device. (For example: air/cloth ratio and fabric type, weight, and weave for baghouse; throat velocity and water use rate for a venturi scrubber; etc.)

Scrubbant/Water Recirculation Rate: 600-750 gpm

ORP of Scrubbant/Water: To Be Determined

12. By-pass (if any) is to be used when:

N/A

13. Disposal of collected air pollutants: N/A

	Solid waste	Solid waste	Liquid waste	Liquid waste
Volume				
Composition				
Is waste hazardous?			No	
Method of disposal			Onsite WW treatment system w/ discharge to POTW	
Final destination				

If collected air pollutants are recycled, describe:

N/A

Name of person preparing application Melinda Mangiaracina - WHEE, Inc.

Signature _____ **Date** 7/28/2020

PERMIT APPLICATION
FOR
MANUFACTURING OR PROCESSING OPERATION

			-					-				

Do not write in this space

1. **Name of facility or organization:** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Briefly describe the operation of this unit or process in your facility: (separate forms are to be submitted for each type of process or for multiple units of one process type. If the unit or process receives input material from, or provides input material to, another operation, please indicate the relationship between the operations.) An application should be completed for each alternative operating scenario.**

   Operating scenario number Finished Meal Loadout

   Finished meal is loaded out into open-top trucks for transport offsite. Minimal fugitive PM emissions may result from this process. The loadout bay is enclosed except for the truck entrance and exit, and should provide significant control of fugitive dust from loadout operations. A truck will drive in the loadout bay and finished meals will drop out of loadout spouting into the top of the truck.

3. **Type of unit or process (e.g., calcining kiln, cupola furnace):** Finished meal loadout.

   Make: N/A **Model:** N/A

   Rated process capacity (manufacturer's or designer's guaranteed maximum) in pounds/hour: ≈ 100,000

   Manufactured date: N/A **Proposed installation date:** 2021/2022

   Original installation date (if existing): N/A

   Reconstruction or Modification date (if applicable): N/A

4. **Normal operating schedule:**

   Hours per day: 16-24 **Days per week:** 5-6 **Weeks per year:** 52

   Peak production season (if any): N/A

5. **Materials (feed input) used in unit or process (include solid fuel materials used, if any):**

Material	Process Rate Average (lb/hr)	Maximum (lb/hr)	Quantity tons/year
Finished Meal	< 100,000	100,000	See Attach. B

6. **Total heat input capacity of process heating equipment (exclude fuel used by indirect heating equipment previously described on ADEM Form 104):** N/A **MMBtu/hr**

Fuel	Heat Content	Units	Max. % Sulfur	Max. % Ash	Grade No. [fuel oil only]	Supplier [used oil only]
Coal		Btu/lb				
Fuel Oil		Btu/gal				
Natural Gas		Btu/ft^3				
L. P. Gas		Btu/ft^3				
Wood		Btu/lb				
Other (specify)						

7. **Products of process or unit:**

Products	Quantity/year	Units of production
Finished Animal Feed Ingredient Meals	See Attachment B.	

8. **For each regulated pollutant, describe any limitations on source operation which affects emissions or any work practice standard (attach additional page if necessary):**

Loadout operations will occur in an enclosed structure.

9. **Is there any emission control equipment on this emission source?**

☐ **Yes** ☑ **No (Where a control device exists, ADEM Form 110 must be completed and attached).**

10. Air contaminant emission points: (Each point of emission should be listed separately and numbered so that it can be located on the attached flow diagram):

Emission Point	Stack											
	UTM Coordinates		Geographic Coordinates		Height Above Grade (Feet)	GEP Stack Height (Feet)	Base Elevation (Feet)	Inside Diameter for Round Opening (Feet)	Inside Area if NOT Round Opening (sq. feet)	Gas Exit Velocity (Feet/Sec)	Volume of Gas Discharged (ACFM)	Exit Temperature (°F)
	E-W (km)	N-S (km)	LAT	LONG								
LO1*	583342	3758291	33.96182	-86.0981	≈ 15	N/A	≈ 500	N/A		N/A	N/A	Ambient
	*Fugitive source											

*** Std temperature is 68°F - Std pressure is 29.92" in Hg.**

11. **Air contaminants emitted: Basis of estimate (material balance, stack test, emission factor, etc.) must be clearly indicated on calculations appended to this form. Fugitive emissions must be included and calculations must be appended.**

Emission Point	Pollutants	Potential Emissions			Regulatory Emission Limit	
		(lb/hr)	(Tons/yr)	Basis of Calculation	(lb/hr)	(units of standard)
	Refer to					
	Attachment B					

12. **Using a flow diagram:**

(1) **Illustrate input of raw materials,**

(2) **Label production processes, process fuel combustion, process equipment and air pollution control equipment,**

(3) **Illustrate locations of air contaminant release so that emission points under item 10 can be identified.**

(☑ Check box if extra pages are attached)
Process flow diagram

13. Is this unit or process in compliance with all applicable air pollution rules and regulations?

☑Yes ☐No

(if "no", a compliance schedule, ADEM Form 437 must be completed and attached.)

14. Does the input material or product from this process or unit contain finely divided materials which could become airborne?

☑Yes ☐No

15. If "yes", is this material stored in piles or in some other facility as to make possible the creation of fugitive dust problems?

☐Yes ☑No

List storage piles or other facility (if any): N/A

Type of material	Particle size (diameter or screen size)	Pile size or facility (average tons)	Methods utilized to control fugitive emissions (wetted, covered, etc.)

Name of person preparing application: Melinda Mangiaracina - WHEE, Inc.

Signature: [signature] Date: 7/28/2020

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AIR DIVISION

PERMIT APPLICATION FOR LOADING AND STORAGE OF ORGANIC COMPOUNDS

			-					-			

Do not write in this space

1. **Name of Facility or Organization:** Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients Plant

2. **Plant Location:** Gadsden, AL

3. ***Permit Application is made for:***

- ☐ **Existing Equipment**
- ☑ **New Equipment**
- ☐ **Modification**
- ☐ **Change in Location**
- ☐ **Other** _____

4. ***Normal Schedule of Operation***

Hours per day: 24 **Weeks per Year:** 52

Days per Week: 5-6 **Peak Season:** N/A

5. **For each regulated pollutant, describe any limitations on source operation which affects emissions or any work practice standard (attach additional page if necessary):**

The tank proposed with this application stores on-road diesel fuel.

6. **On a separate sheet sketch a map indicating the location of each storage tank and/or loading rack for which this application is made.**

Name of Person Preparing this Application: Melinda Mangiaracina

Title: Staff Engineer - WHEE, Inc. **Date:** 7/28/2020

Telephone: (770) 844-0037 **Signature:**

If additional entries are needed, make additional copies of this form and attach to the application. Make sure to identify the additional sheets such as 2a of 8 or 2.1 of 8.

TABLE 108.1-PROPOSED STORAGE TANK(S)/LOADING RACK(S) AT FACILITY

TANK ID	TANK CAPACITY (gallons)	TANK TYPE [a] (HFRT, VFRT, EFLRT, DEFLRT, or IFLRT)	FILL METHOD [d]	DATE MANUFACTURED	DATE INSTALLED OR CONSTRUCTION COMMENCED	DATE RECONSTRUCTED, AS APPLICABLE	DATE MODIFIED, AS APPLICABLE	EQUIPPED WITH VAPOR RECOVERY SYSTEM [b] (Y or N)	APPLICABLE REGULATIONS
AST1	10,000	HFRT	Top filling	2021/2022	2021/2022	N/A	N/A	N	

RACK ID	RACK TYPE (Marine, Truck, Rail, etc.)	PROPOSED PRODUCTS TO BE LOADED [c]	TYPE OF LOADING [d]	IF SUBMERGED, WHAT % IS FILL PIPE SUBMERGED?	EQUIPPED WITH VAPOR RECOVERY SYSTEM [b] (Y or N)	PROVIDE EFFICIENCY OF VAPOR COLLECTION SYSTEM	APPLICABLE REGULATIONS

(a) HFRT-horizontal fixed roof tank; VFRT-vertical fixed roof tank; EFLRT-external floating roof tank; DEFLRT-domed external floating roof tank; IFLRT-internal floating roof tank
(b) Please attach ADEM Form 110 for the vapor recovery system.
(c) Use Product ID from Table 108.2 or list "ALL" if rack may transfer all of the products listed in Table 108.2.
(d) Type of Filling/Loading-submerged fill, splash filling, top filling, bottom filling, etc

TABLE 108.2-PROPOSED PRODUCT(S) STORED AND LOADED OUT AT FACILITY

PRODUCT CODE	PRODUCT NAME & CAS NO., IF APPLICABLE	LIQUID MOLECULAR WEIGHT (lb/lb-mole)	VAPOR MOLECULAR WEIGHT (lb/lb-mole)	MAXIMUM TRUE VAPOR PRESSURE (psia)	LIQUID DENSITY [a] (lb/gal)	TEMP. STORED AT (°F)	TOTAL PRODUCT THROUGHPUT (gal/year)	Loadout [b] Mark all that apply					Worst case VOC emissions from **storing** this product (TPY)	Worst case VOC emissions from **loading** this product (TPY)
								Marine Vessel	Truck	Rail Car	Pipeline			
A	On-Road Diesel Fuel	168		0.01	6.943	Ambient	250,000		X				0.18	.014
B														
C														
D														
E														
F														
G														
H														
I														
J														
K														
L														
M														
N														
O														
P														
Q														
R														
S														
T														
U														
V														
W														
X														
Y														

(a) Applicable for products stored in tanks with floating roofs.
(b) Loadout is product transferred from tank through rack to marine vessel, truck or rail car, or container.

If applying for the construction/modification/reconstruction of more than six tanks, make additional copies of this form as needed and attach to the application. Make sure to identify the additional sheets such as 4a of 8 or 4.1 of 8.

TABLE 108.3- FIXED ROOF STORAGE TANK (HORIZONTAL)

TANK ID →	AST1					
SHELL LENGTH (ft-in)						
SHELL DIAMETER (ft-in)						
HEATED? (Y or N)	N					
PRESSURIZED? (Y or N)	N					
UNDERGROUND? (Y or N)	N					
SHELL COLOR/SHADE [a]	White					
SHELL CONDITION [b]	New					
PROPOSED PRODUCTS TO BE STORED [c]	On-Road Diesel Fuel					
PRODUCT TRANSFER FROM TANK TO:	Fleet Vehicles/Equipment					
gallons per day (GPD) [d]	< 1,000 GPD	GPD	GPD	GPD	GPD	GPD

TABLE 108.4-FIXED ROOF STORAGE TANK (VERTICAL)

TANK ID →							
SHELL HEIGHT (ft-in)							
SHELL DIAMETER (ft-in)							
MAX LIQUID HEIGHT (ft-in)							
AVG LIQUID HEIGHT (ft-in)							
HEATED? (Y or N)							
PRESSURIZED? (Y or N)							
SHELL CHARACTERISTICS	SHELL COLOR/SHADE [a]						
	SHELL CONDITION [b]						
ROOF CHARACTERISTICS	ROOF COLOR/SHADE [a]						
	ROOF CONDITION [b]						
	CONE/DOME HEIGHT (ft-in)						
PROPOSED PRODUCTS TO BE STORED [c]							
PRODUCT TRANSFER FROM TANK TO:							
gallons per day (GPD) [d]		GPD	GPD	GPD	GPD	GPD	GPD

(a) Select from: White/White (W/W); Aluminum/Specular (A/S); Aluminum/Diffuse (A/D); Gray/Light (G/L); Gray/Medium (G/M); Red/Primer (R/P) If tank color unknown, list "default"

(b) Select from: Good or Poor. If tank condition unknown, list "default"

(c) Use Product ID from Table 108.2 or list "ALL" if tank may store all of the products listed in Table 108.2.

(d) Should be completed if product in tank is being transferred to a specific piece of equipment or process which is not a loading rack (e.g. boiler).

If applying for the construction/modification/reconstruction of more than six tanks, make additional copies of this form as needed and attach to the application. Make sure to identify the additional sheets such as 5a of 8 or 5.1 of 8.

TABLE 108.5-EXTERNAL FLOATING ROOF STORAGE TANK

TANK ID →							
SHELL DIAMETER (ft-in)							
DOMED? (Y or N)							
INTERNAL SHELL CONDITION [a]							
PAINT COLOR/SHADE [b]							
PAINT CONDITION [c]							
ROOF CHARACTERISTICS	**LIST ONE** PONTOON OR DOUBLE DECK						
	ROOF FITTING CATEGORY [d]						
TANK CONSTRUCTION	**LIST ONE** WELDED OR RIVETED						
SEAL TYPE	PRIMARY [e]						
	SECONDARY [f]						
PROPOSED PRODUCTS TO BE STORED [g]							
PRODUCT TRANSFER FROM TANK TO:							
gallons per day (GPD) [h]		GPD	GPD	GPD	GPD	GPD	GPD

(a) Select from: Light Rust; Dense Rust; Gunite™ Lining. If internal shell condition unknown, list "default"
(b) Select from: White/White (W/W); Aluminum/Specular (A/S); Aluminum/Diffuse (A/D); Gray/Light (G/L); Gray/Medium (G/M); Red/Primer (R/P) If paint color unknown, list "default"
(c) Select From: Good or Poor. If tank condition unknown, list "default"
(d) Typical or Detail. If detail, list fittings and quantities for each tank on Table 108.7
(e) Select from: Mechanical Shoe (MS); Liquid Mounted (LM); or Vapor Mounted (VM)
(f) Select from: None, Shoe Mounted (SM), Rim Mounted (RM) or Weather Shield (WS)
(g) Use Product ID from Table 108.2 or list "ALL" if tank may store all of the products listed in Table 108.2.
(h) Should be completed if product in tank is being transferred to a specific piece of equipment or process which is not a loading rack (e.g. boiler).

If applying for the construction/modification/reconstruction of more than six tanks, make additional copies of this form as needed and attach to the application. Make sure to identify the additional sheets such as 6a of 8 or 6.1 of 8.

TABLE 108.6-INTERNAL FLOATING ROOF STORAGE TANK

TANK ID →							
SHELL DIAMETER (ft-in)							
SELF SUPPORT. ROOF? (Y or N)							
NUMBER OF COLUMNS							
EFFECTIVE COLUMN DIAMETER [a]							
INTERNAL SHELL CONDITION [b]							
EXTERNAL SHELL	PAINT COLOR/SHADE [c]						
	PAINT CONDITION [d]						
ROOF CHARACTERISTICS	PAINT COLOR/SHADE [c]						
	PAINT CONDITION [d]						
DECK CHARAC.	**LIST ONE** BOLTED OR WELDED [e]						
SEAL TYPE	PRIMARY [f]						
	SECONDARY [g]						
PROPOSED PRODUCTS TO BE STORED [h]							
PRODUCT TRANSFER FROM TANK TO:							
gallons per day (GPD) [i]		GPD	GPD	GPD	GPD	GPD	GPD

(a) Select from: 9" by 7" Built-Up Column, 8" Diameter Pipe, or Unknown
(b) Select from: Light Rust; Dense Rust; Gunite™ Lining. If internal shell condition unknown, list "default"
(c) Select from: White/White (W/W); Aluminum/Specular (A/S); Aluminum/Diffuse (A/D); Gray/Light (G/L); Gray/Medium (G/M); Red/Primer (R/P) If paint color unknown, list "default"
(d) Select From: Good or Poor. If tank condition unknown, list "default"
(e) Typical or Detail. If detail, list fittings and quantities for each tank on Table 108.7
(f) Select from: Mechanical Shoe (MS); Liquid Mounted (LM); or Vapor Mounted (VM)
(g) Select from: None, Shoe Mounted (SM), or Rim Mounted (RM)
(h) Use Product ID from Table 108.2 or list "ALL" if tank may store all of the products listed in Table 108.2.
(i) Should be completed if product in tank is being transferred to a specific piece of equipment or process which is not a loading rack (e.g. boiler).

TABLE 108.7-FLOATING ROOF FITTINGS-DETAIL
(DECK OR ROOF CHARACTERISTICS)

TANK ID. _____ TANK CONSTRUCTION: IFRT or EFRT

(fill out separate page for each IFRT or EFRT)

Specify deck fitting type(s) by underlining and indicate quantity of each fitting from the following:

A. Access Hatch Qty:_____
1) Bolted cover, gasketed
2) Unbolted cover, gasketed
3) Unbolted cover, ungasketed

B. Automatic, Gauge Float Well Qty:_____
1) Bolted cover, gasketed
2) Unbolted cover, gasketed
3) Unbolted cover, ungasketed

C. Column Well Qty:_____
1) Built-up column-sliding cover, gasketed
2) Built-up column-sliding cover, ungasketed
3) Pipe column-flexible fabric sleeve seal
4) Pipe column-sliding cover, gasketed
5) Pipe column-sliding cover, ungasketed

D. Gauge-Hatch/Sample Well, 8 inch diameter Qty:_____
1) Weighted mechanical actuation, gasketed
2) Weighted mechanical actuation, ungasketed

E. Ladder Well Qty:_____
1) Sliding cover, gasketed
2) Sliding cover, ungasketed

F. Rim Vent, 6 inch diameter Qty:_____
1) Weighted mechanical actuation, gasketed
2) Weighted mechanical actuation, ungasketed

G. Roof Drain, 3 inch diameter Qty:_____
1) Open
2) 90% Closed

H. Roof Leg, 3 inch diameter Qty:_____
1) Adjustable, Pontoon Area, ungasketed
2) Adjustable, Center Area, ungasketed
3) Adjustable, Double Deck Roofs
4) Fixed
5) Adjustable, Pontoon Area, gasketed
6) Adjustable, Pontoon Area, socks
7) Adjustable, Center Area, gasketed
8) Adjustable, Center Area, socks

I. Roof Leg or Hanger Well Qty:_____
1) Adjustable
2) Fixed

J. Sample pipe or well Qty:_____
1) Slotted pipe sliding cover, gasketed
2) Slotted pipe sliding cover, ungasketed
3) Slit fabric seal, 10% open area

K. Slotted Guide-Pole/Sample Well Qty:_____
1) Ungasketed sliding cover without float
2) Ungasketed sliding cover with float
3) Gasketed sliding cover without float
4) Gasketed sliding cover with float
5) Gasketed sliding cover with pole wiper
6) Gasketed sliding cover with pole sleeve
7) Gasketed sliding cover with float, wiper
8) Gasketed sliding cover with float, sleeve, wiper
9) Gasketed sliding cover with pole sleeve, wiper

L. Stub drain, 1 inch diameter [Yes or No]

M. Unslotted Guide-Pole Well Qty:_____
1) Ungasketed sliding cover
2) Gasketed sliding cover
3) Ungasketed sliding cover with sleeve
4) Gasketed sliding cover with sleeve
5) Gasketed sliding cover with wiper

N. Vacuum breaker Qty:_____
1) Weighted mechanical actuation, gasketed
2) Weighted mechanical actuation, ungasketed

For an IFRT, if <u>bolted</u>, give deck construction method for the following:

A. Continuous Sheet [5 ft, 6 ft, or 7 ft wide] _____ **OR**

B. Panel Construction [5x7.5 ft or 5x12 ft] _____

TABLE 108.8-CHEMICAL DATA INFORMATION

Use a separate form for each chemical not in the current version of EPA's TANKS Program's chemical database.

Section I:

Chemical Name: _____

CAS Number: _____

Category: ☐ Crude Oil ☐ Petroleum Distillates ☐ Organic Liquids

Liquid Molecular Weight: _____

Vapor Molecular Weight: _____

Liquid Density (lb/gal @ 60°F): _____

Section II: Vapor Pressure Information (fill in one or more of the following options completely)

Option 1 Enter Vapor Pressure (psia) for each temperature:

40F:_____ 80F:_____

50F:_____ 90F:_____

60F:_____ 100F:_____

70F:_____

Option 2 Constants for Antoine's Equation (using Celsius):

A:_____ B:_____ C:_____

Option 3 Constants for Antoine's Equation (using Kelvin):

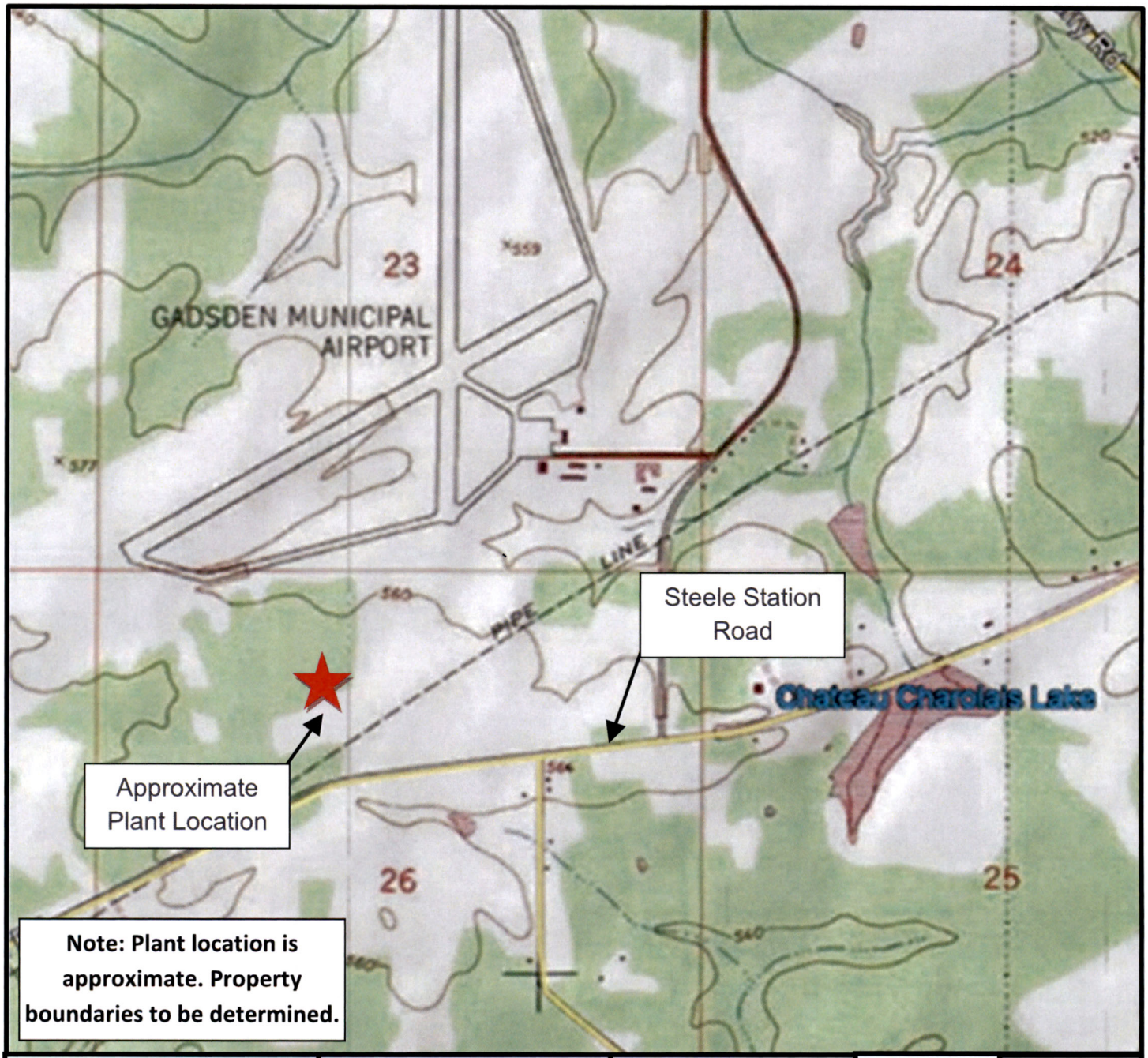
A:_____ B:_____ C:_____

Option 4 Reid Vapor Pressure (psia): (Distillates and Crude Oils only) _____

ASTM Slope: (Distillates Only) _____

Attachment A

Location Map



WHEE
WOODRUFF & HOWE ENVIRONMENTAL ENGINEERING, INC.
4405 Canton Hwy, Suite 100
Cumming, GA 30040

PILGRIM'S PRIDE CORPORATION
GADSDEN ANIMAL FEED INGREDIENTS PLANT
ATTACHMENT A — LOCATION MAP

3900 STEELE STATION RD
GADSDEN, ALABAMA
ETOWAH COUNTY

N

DATE
7/27/2020

0 0.25 Miles

Attachment B

Emissions Inventory (Redacted)

Attachment B - Emission Inventory **PUBLIC/REDACTED**

Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients

Gadsden, Alabama

Emission Source (Emission Unit ID)	Material Output	Max Annual Operating Hours	Emissions Control	Pollutant Type	Emission Rate (Lbs/Hr)	Emission Rate (Tons/yr)
Direct Rendering Process						
Direct Rendering Operation Vapors (R1)	Pet Food Meal and Pet Food Fat	8,760	RTO	Cond. PM	0.59	2.58
				PM	0.27	1.18
				PM_{10}	0.80	3.49
				$PM_{2.5}$	0.67	2.91
				NO_X	1.88	8.24
				SO_2	8.21	35.95
				VOC	3.14	13.75
				H_2S	0.23	1.01
				NH_3	0.70	3.05
Direct Rendering Operation Vapors (Back-Up Operation Scenario: RTO is down and/or out of service)	Pet Food Meal and Pet Food Fat	150	Building Air Scrubbers	Cond. PM	0.27	0.02
				PM	0.13	0.01
				PM_{10}	0.38	0.03
				$PM_{2.5}$	0.31	0.02
				VOC	45.99	3.45
				H_2S	0.62	0.05
				NH_3	0.72	0.05
Building Air Scrubbers						
Sum of Building Air Scrubbers (S1, S2, S3)	Building Air from Rendering Areas	8,760		Cond. PM	1.81	7.94
				PM	0.43	1.88
				PM_{10}	2.11	9.23
				$PM_{2.5}$	1.94	8.48
				NH_3	0.34	1.48
				H_2S	0.21	0.94
				VOC	29.25	128.11

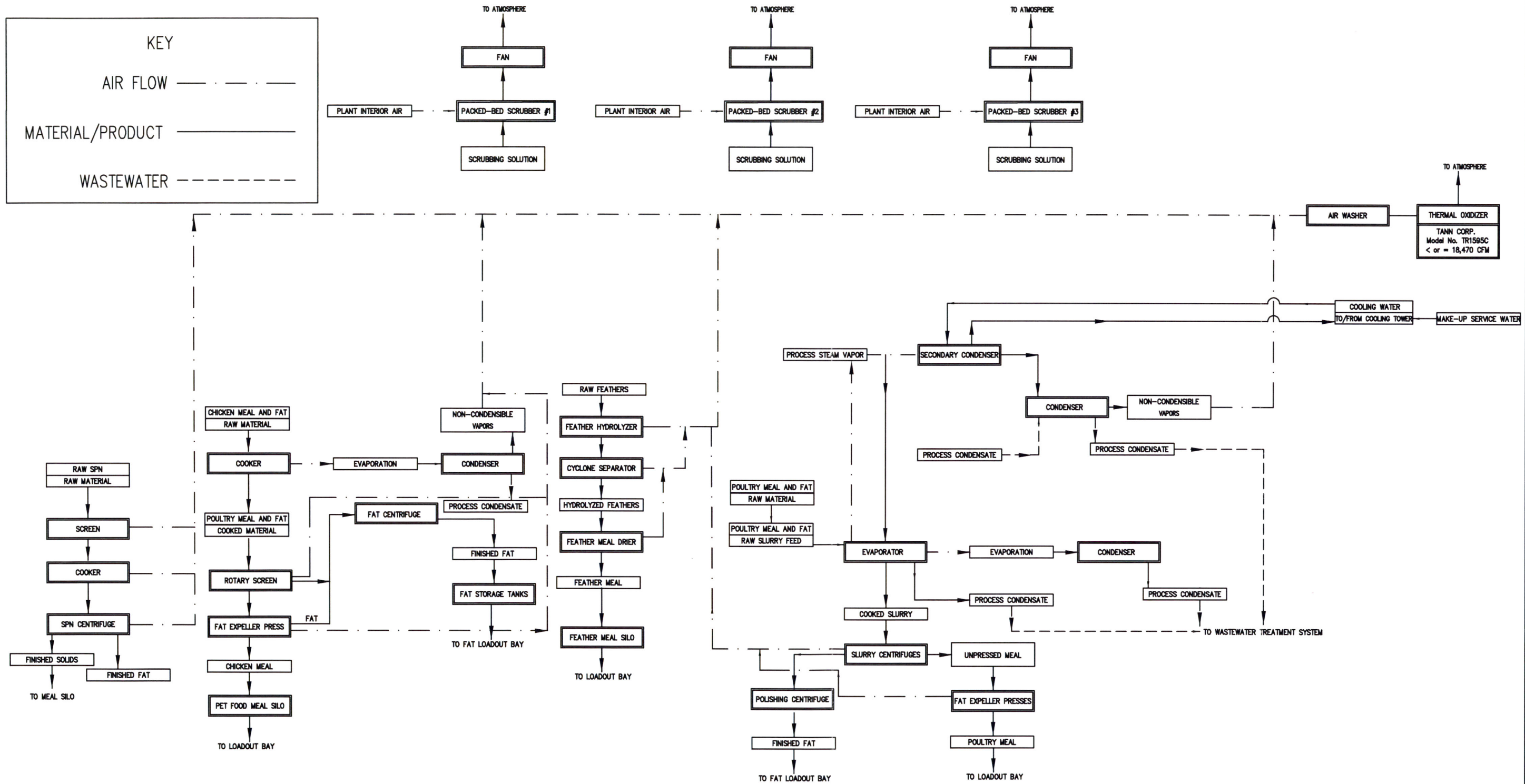
PUBLIC/REDACTED

KEY

AIR FLOW

MATERIAL/PRODUCT

WASTEWATER



NOTES:
1. CHICKEN MEAL PROCESS IS A FUTURE EXPANSION AND WILL NOT BE INSTALLED INITIALLY.
2. EXHAUST GASES ARE PULLED FROM VARIOUS PROCESSES AND DUCTED FOR TREATMENT THROUGH THE AIR WASHER AND RTO.
3. BOILER STEAM IS USED IN VARIOUS PROCESSES. STEAM ADDITION IS NOT SHOWN.

WOODRUFF & HOWE
ENVIRONMENTAL ENGINEERING, INC.
4405 CANTON HWY, SUITE 100
CUMMING, GEORGIA 30040
TEL: 770-844-0037

ATTACHMENT C
PROCESS FLOW DIAGRAM

PILGRIM'S PRIDE CORPORATION
GADSDEN ANIMAL FEED
INGREDIENTS PLANT
3900 STEELE STATION ROAD
GADSDEN, ALABAMA 35906
ETOWAH COUNTY

JOB NO. 20-039

DRAWN BY.	CHECKED BY
MM	TTS
SCALE	SHEET
N.T.S.	ATTACH C
DATE	REV
7/28/20	

Attachment B - Emission Inventory **PUBLIC/REDACTED**

Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients

Gadsden, Alabama

Emission Source (Emission Unit ID)	Material Output	Max Annual Operating Hours	Emissions Control	Pollutant Type	Emission Rate (Lbs/Hr)	Emission Rate (Tons/yr)
Boilers #1, #2, #3						
Boiler #1 (B1)	Natural Gas	8,760		Cond. PM	0.38	1.67
				PM	0.13	0.56
				PM_{10}	0.51	2.23
				$PM_{2.5}$	0.51	2.23
				NO_X	2.14	9.38
				CO	5.62	24.64
				SO_2	0.04	0.18
				VOC	0.37	1.61
				Pb	3.35E-05	1.47E-04
				CO_2	7812.6594	34,219.448
				CH_4	0.1339	0.5866
				N_2O	0.0134	0.06
				CO_2e	7,819.998	34,251.591
Boiler #2 (B2)	Natural Gas	8,760		Cond. PM	0.38	1.67
				PM	0.13	0.56
				PM_{10}	0.51	2.23
				$PM_{2.5}$	0.51	2.23
				NO_X	2.14	9.38
				CO	5.62	24.64
				SO_2	0.04	0.18
				VOC	0.37	1.61
				Pb	3.35E-05	1.47E-04
				CO_2	7812.66	34219.45
				CH_4	0.1339	0.5866
				N_2O	0.0134	0.0587
				CO_2e	7,812.677	34,219.526

Attachment B - Emission Inventory **PUBLIC/REDACTED**

Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients

Gadsden, Alabama

Emission Source (Emission Unit ID)	Material Output	Max Annual Operating Hours	Emissions Control	Pollutant Type	Emission Rate (Lbs/Hr)	Emission Rate (Tons/yr)
Boiler #3 (B3)	Natural Gas	8,760		Cond. PM	0.38	1.67
				PM	0.13	0.56
				PM_{10}	0.51	2.23
				$PM_{2.5}$	0.51	2.23
				NO_X	2.14	9.38
				CO	5.62	24.64
				SO_2	0.04	0.18
				VOC	0.37	1.61
				Pb	3.35E-05	1.47E-04
				CO_2	7812.66	34219.45
				CH_4	0.1339	0.5866
				N_2O	0.0134	0.0587
				CO_2e	7,812.659	34,219.448
Regenerative Thermal Oxidizer Combustion Emissions						
RTO (RTO1)	Natural Gas	8,760		Cond. PM	0.014	0.06
				PM	0.005	0.02
				PM_{10}	0.018	0.08
				$PM_{2.5}$	0.018	0.08
				NO_X	0.240	1.05
				CO	0.202	0.88
				SO_2	0.001	0.01
				VOC	0.013	0.06
				Pb	1.20E-06	5.26E-06
				CO_2	280.0320	1,227
				CH_4	0.0048	0.0210
				N_2O	0.0005	0.0021
				CO_2e	280.032	1,226.540

Attachment B - Emission Inventory **PUBLIC/REDACTED**

Pilgrim's Pride Corporation - Gadsden Animal Feed Ingredients

Gadsden, Alabama

Emission Source (Emission Unit ID)	Material Output	Max Annual Operating Hours	Emissions Control	Pollutant Type	Emission Rate (Lbs/Hr)	Emission Rate (Tons/yr)
Miscellaneous Sources						
Truck Load-Out of Meal (LO1)	Finished Poultry Meals	8,760		PM	0.165	0.22
				PM_{10}	0.040	0.05
				$PM_{2.5}$	0.040	0.05
Aboveground Fuel Storage Tank (AST1)	No. 2 Fuel Oil	8,760		VOC	0.072	0.318

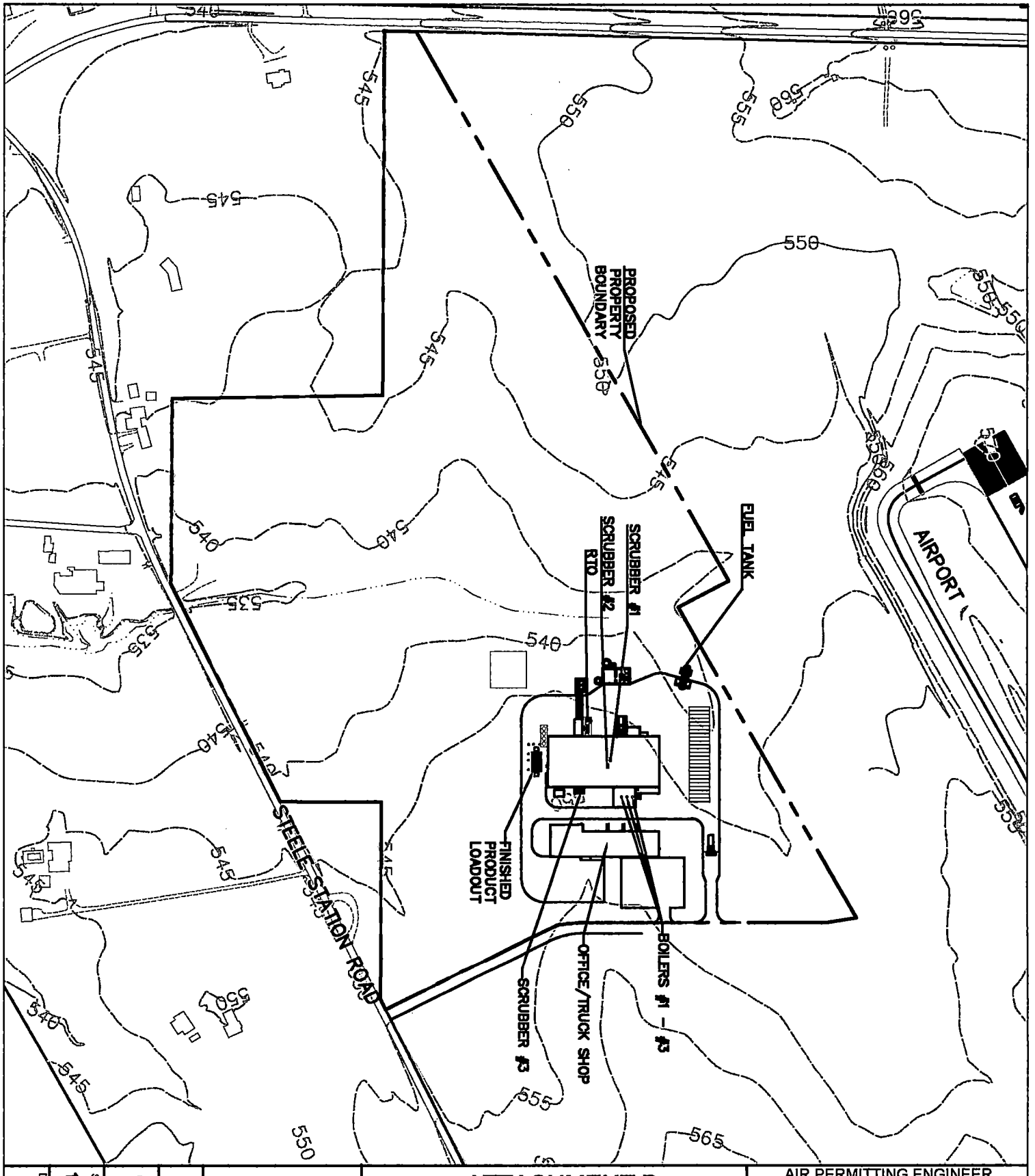
Emissions Summary	
	Emission Rate PTE (Tons/yr)
Cond. PM	15.6
PM	4.98
PM_{10}	19.57
$PM_{2.5}$	18.24
NO_X	37.45
CO	74.79
SO_2	0.53
VOC	150.52
NH_3	4.58
H_2S	1.99
CO_2	103,885
CH_4	1.781
N_2O	0.178
CO_2e	103,917

Attachment C

Process Flow Diagram
(REDACTED)

Attachment D

Site Map



DATE	07/2020	JOB NO.	20-039
SCALE	1" = 400'	DRAWN BY:	MM
SHEET	1 OF 1	CHECKED BY:	TTS
REV	0		

Pilgrim's

ATTACHMENT D
SITE MAP

PILGRIM'S PRIDE CORPORATION
ANIMAL FEED INGREDIENTS PLANT
3900 STEELE STATION RD
GADSDEN, AL 35906

AIR PERMITTING ENGINEER
WHEE
WOODRUFF & HOWE
ENVIRONMENTAL ENGINEERING, INC.
192 SPRING LAKE LANE
CANTON, GEORGIA 30115
TEL: 770-844-0037
FAX: 678-813-3880

Attachment E

Manufacturer Information

SECTION 2.0 1,600 HP PACKAGE - GENERAL INFORMATION

Three (3) Victory Energy, "***Frontier***" Series, ***Model: F2-WB-1600-S165-Vision Low NOx Natural Gas Burner.***

The unit(s) will include the following

Quantity:	Three (3) Boiler
➢ Capacity	1,600 HP
➢ Design:	Wetback
➢ Heating Surface	5,881 SQ.FT. of heating surface
➢ "Integral" economizer	2570 SQ.FT. of heating surface
➢ Design Pressure:	165 PSI
➢ Operating Pressure:	135 PSI – NRV Outlet

- **Burner:**
  - Primary Fuel: .....Natural Gas
    - 2nd fuel type:.....Bgas (future)
  - NOx requirements:..... 15 PPM
  - Turn Down Ratio: ..... (10:1)
  - Electrical: 460/60/3
    - Control Circuit: 120/60/1
  - Regulated Gas pressure: ..... 20 PSIG TO INLET OF GAS TRAIN.
  - Codes:..... NFPA
  - Flue Gas Recirculation .....Yes
  - Boiler Location: .....Indoors (NEMA 4)

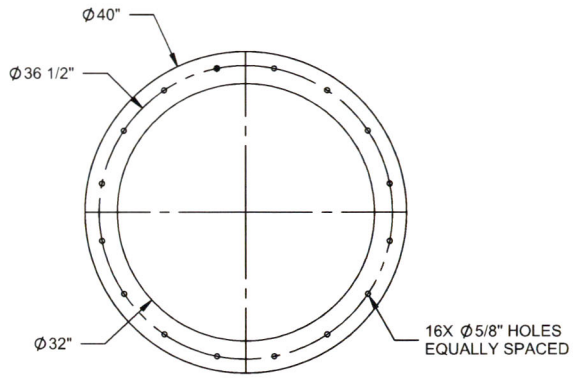
GENERAL DATA

- 2-Pass, Scotch Marine Firetube Boiler.
- Built to ASME Code Section I and National Board Rules.
- Tubesheet Thickness: .75" Thick - SA516-70
- Tube Wall Thickness: .105"MW x 2.5"OD
  All "rifled" Tubes
- Full Skid Base.
- 2" Insulation and "Stainless Steel" jacket on boiler shell.
- Davited front & Rear flue gas doors.
- Front and rear observation ports.

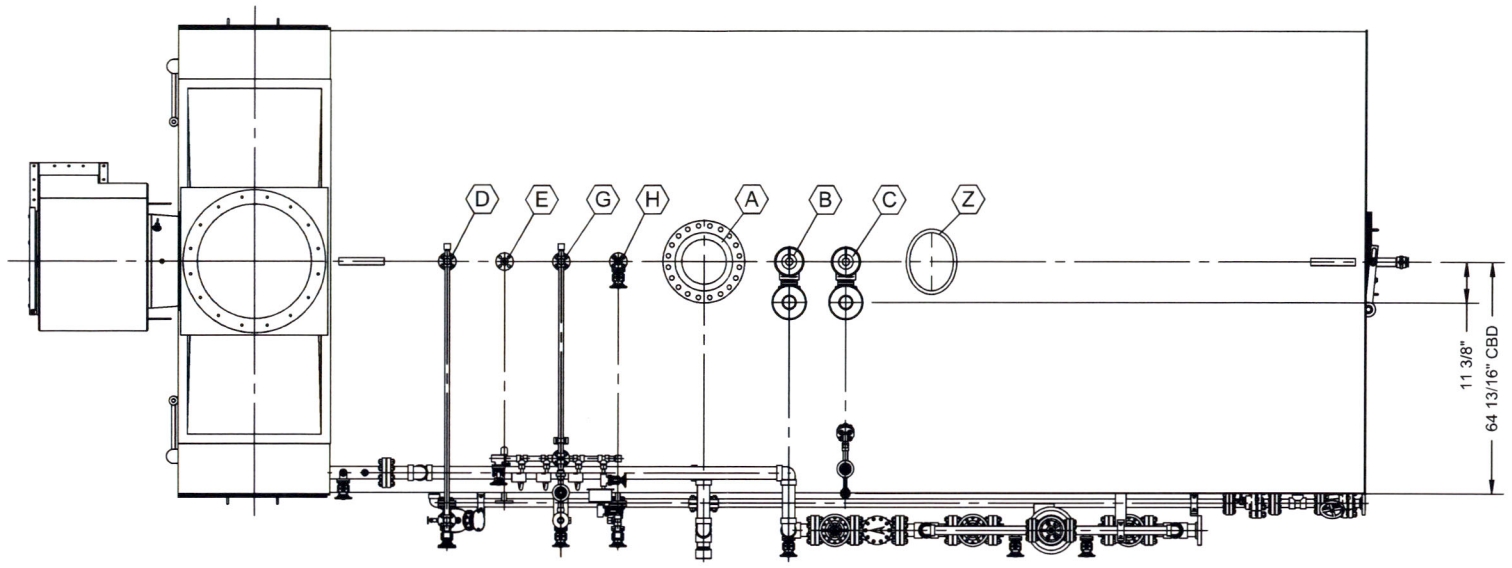
TOC

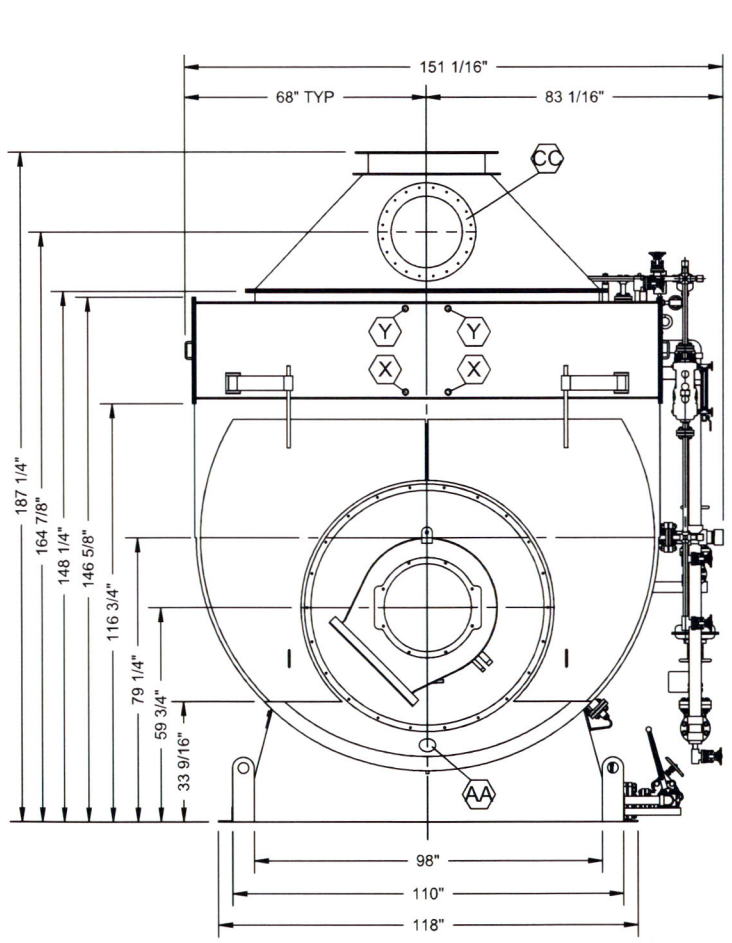
Attachment E - Manufacturer's Information
B1, B2, B3

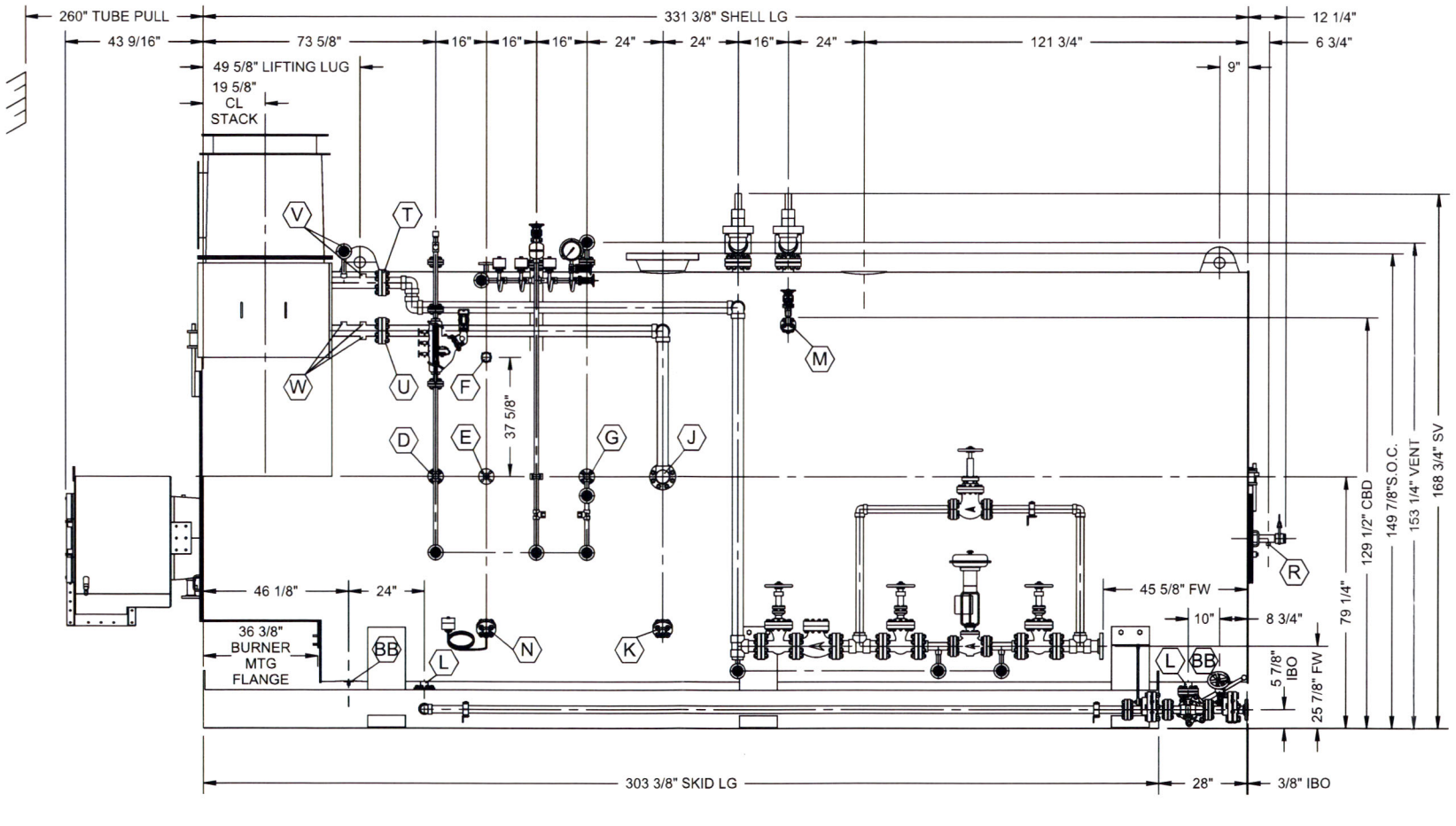
NOTES:
1. BURNER BLOWER & DUCTWORK NOT SHOWN
2. FGR PIPING TO BURNER NOT SHOWN

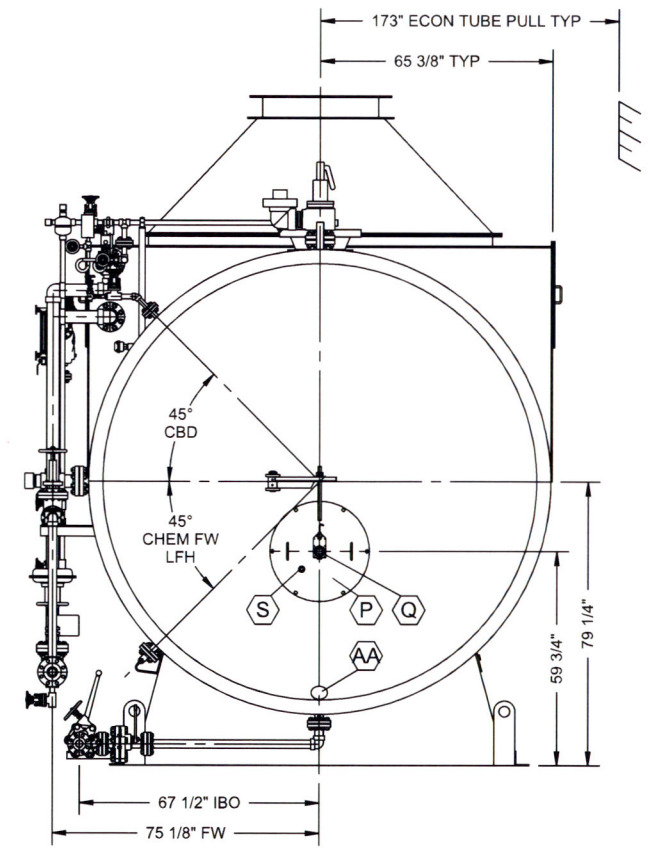


STACK FLANGE DETAIL









BOILER CONNECTIONS										BOILER RATINGS	
ITEM	DESCRIPTION	SIZE	TYPE	QTY	ITEM	DESCRIPTION	SIZE	TYPE	QTY	NOMINAL BOILER HP	1,600
A	STEAM OUTLET	14"	300# FL	1	Q	SIGHT PORT	2"	NPT	1	DESIGN PRESSURE	165 PSI
B	SAFETY VALVE 1	3"	300# FL	1	R	SIGHT PORT PURGE AIR	1/2"	NPT	1	GROSS OUTPUT	53,566 MBH
C	SAFETY VALVE 2	3"	300# FL	1	S	FURNACE PRESS. TRANS.	1"	NPT	1	STEAM OUTPUT	55,199 LBS/HR
D	LWCO	1"	300# FL	2	T	ECON FW INLET	3"	300# FL	1	RATED INPUT	66,958 MBH
E	ALWCO	1"	300# FL	2	U	ECON FW OUTLET	3"	300# FL	1	BOILER DATA	
F	ALWCO - PROBE	1"	NPT	1	V	ECON FW INLET GAUGE/VENT	1"	NPT	2	BOILER HEATING SURFACE	5,881 SQFT
G	CONTROLS TREE/LVL TRANS	1"	300# FL	2	W	ECON FW OUTLET GAUGE/DRAIN	1"	NPT	3	ECON HEATING SURFACE	2,570 SQFT
H	VENT	1"	300# FL	1	X	ECON FLUE GAS INLET TEMP	1"	NPT	2	FURNACE VOLUME	487.85 FT^3
J	FEEDWATER	3"	300# FL	1	Y	ECON FLUE GAS OUTLET TEMP	1"	NPT	2	TURNAROUND VOLUME	123.99 FT^3
K	CHEM FW	1 1/2"	300# FL	1	Z	MANWAY	12" X 16"	-	1	STEAMING VOLUME	251.76 FT^3
L	INTERMITTENT BLOWOFF	2"	300# FL	2	AA	HANDHOLE - TUBESHEET	3 1/2" X 4 1/2"	-	2	STEAM RELEASE AREA	191.9 SQFT
M	CONTINUOUS BLOWDOWN	1"	300# FL	1	BB	HANDHOLE - SHELL	3 1/2" X 4 1/2"	-	2	WATER CAPACITY (FULL)	8,493 GAL @ 70,645 LBS
N	LOW FIRE HOLD	1 1/2"	300# FL	1	CC	FGR	20"	FL	1	WATER CAPACITY (NWL)	6,610 GAL @ 54,980 LBS
P	CLEAN OUT PORT	24"	-	1	DD	OTHER	-	-	-	SHIPPING WEIGHT	105,000 LBS

NOTES

1. VICTORY ENERGY, L.L.C. RESERVES THE RIGHT TO CHANGE DIMENSIONS DUE TO PRODUCT REVISION OR JOB REQUIREMENTS
2. PRELIMINARY DIMENSIONS AND MAY BE USED FOR LAYOUT ONLY
3. CONTROLS & PIPING ARE MOUNTED PER SPECIFICATION SHEET
4. BOILER DESIGN CODE ASME SECTION 1
5. DIMENSIONS ARE ± 1/2" UNLESS OTHERWISE NOTED
6. BOILER INSULATED WITH 2"-8# DENSITY MINERAL FIBER INSULATION WITH 22 GAUGE STAINLESS STEEL JACKET

THIS DESIGN OR DRAWING IS NOT SOLD AND IS SUBJECT TO RECALL. REPRODUCTION OR COPYING RIGHTS ARE RESERVED SOLELY TO VICTORY ENERGY OPERATIONS, L.L.C. THE DRAWING HAS BEEN DELIVERED AND RECEIVED ON THE EXPRESSED CONDITIONS THAT IT IS NOT USED IN ANY WAY AGAINST THE INTERESTS AND BENEFITS OF VICTORY ENERGY OPERATIONS, L.L.C., AND THAT THIS DRAWING AND ALL COPIES OF IT WILL BE RETURNED TO VICTORY ENERGY OPERATIONS, L.L.C. IMMEDIATELY UPON DEMAND, AND THAT ALL INFORMATION DISCLOSED BY THIS DRAWING TO THE HOLDER SHALL BE HELD IN CONFIDENCE.

VICTORY ENERGY
10701 E. 126th St. North, Collinsville, OK 74021
PH: 918-274-0023 FAX: 918-274-0059

GENERAL ARRANGEMENT
F2-WB-1600-S165

Design. MJM	Drawn. MJM	Chk'd. MJM	Aprv'd. MJM	Scale.	Dwg. no.	Rev.
Date. 4/24/20	Date. 4/24/20	Date. 4/24/20	Date. 4/24/20	NTS	VE-13794	0

The thermal oxidizer will be:

Tann Corporation model TR1595C rated capacity is 15,000 SCFM

1.1	**Oxidizer Capacity**	15,000 SCFM
1.2	**Thermal Efficiency**	95% Nominal
1.3	**Maximum VOC Concentration**	185 lbs/hr at full capacity
	Based on 15,000 Btu's/lb	
1.4	**VOC Destruction Efficiency:**	97%
1.5	**Natural Gas or Propane:**	Natural Gas
1.6	**Burner Rated Capacity**	2,400,000 Btu's/hr
1.7	**Power Requirement:**	480 v 3 Phase
1.8	**Compressed Air Requirement**	24 CFH
1.9	**Main Exhaust Fan Motor**	150 hp TEFC
1.10	**Main Fan Local Disconnect**	Yes, Included
1.11	**Main Fan Insulation and Cladding**	Yes, included
1.12	**Variable Frequency Drive**	Allen Bradley
1.13	**VFD with Fused Disconnect**	Yes, Included
1.14	**VFD Enclosure**	Yes, included
1.15	**Combustion Blower**	7 hp
1.16	**CB Local Disconnect**	Yes, Included
1.17	**RTO Footprint**	43 ft by 21 ft
1.18	**RTO Stack Height**	60' (diameter is 30")
1.19	**Venturi scrubber prior to the RTO**	

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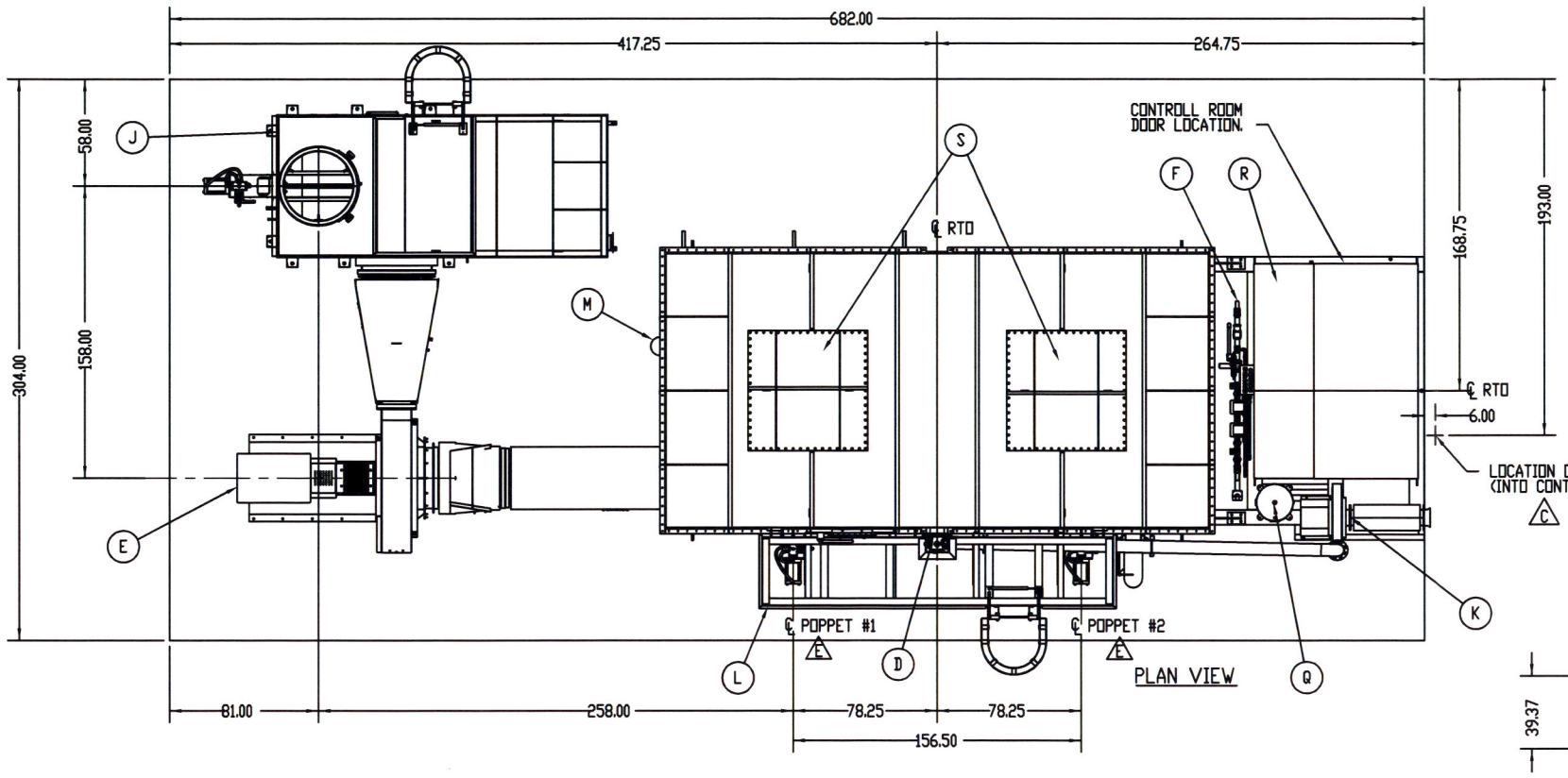
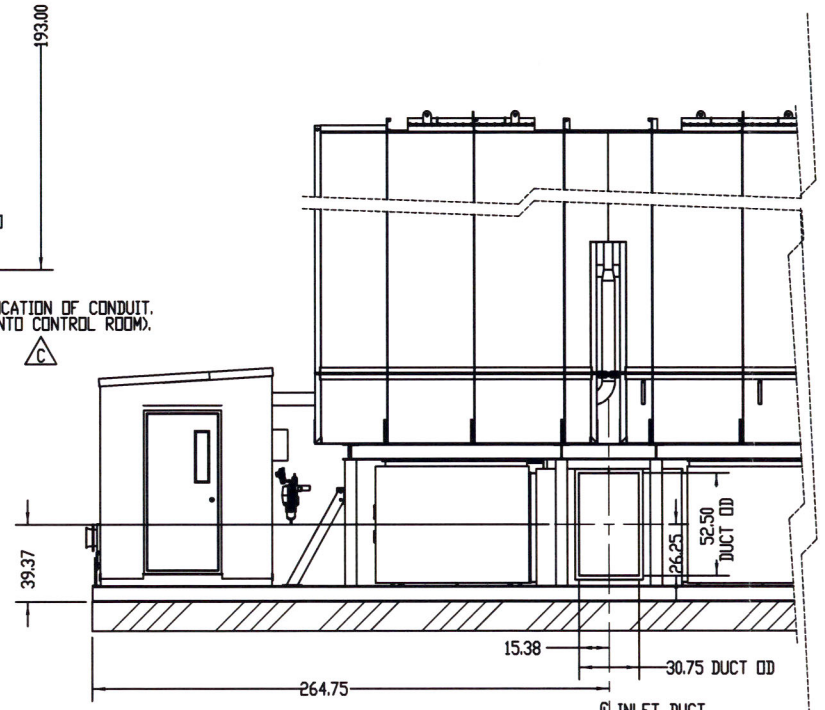
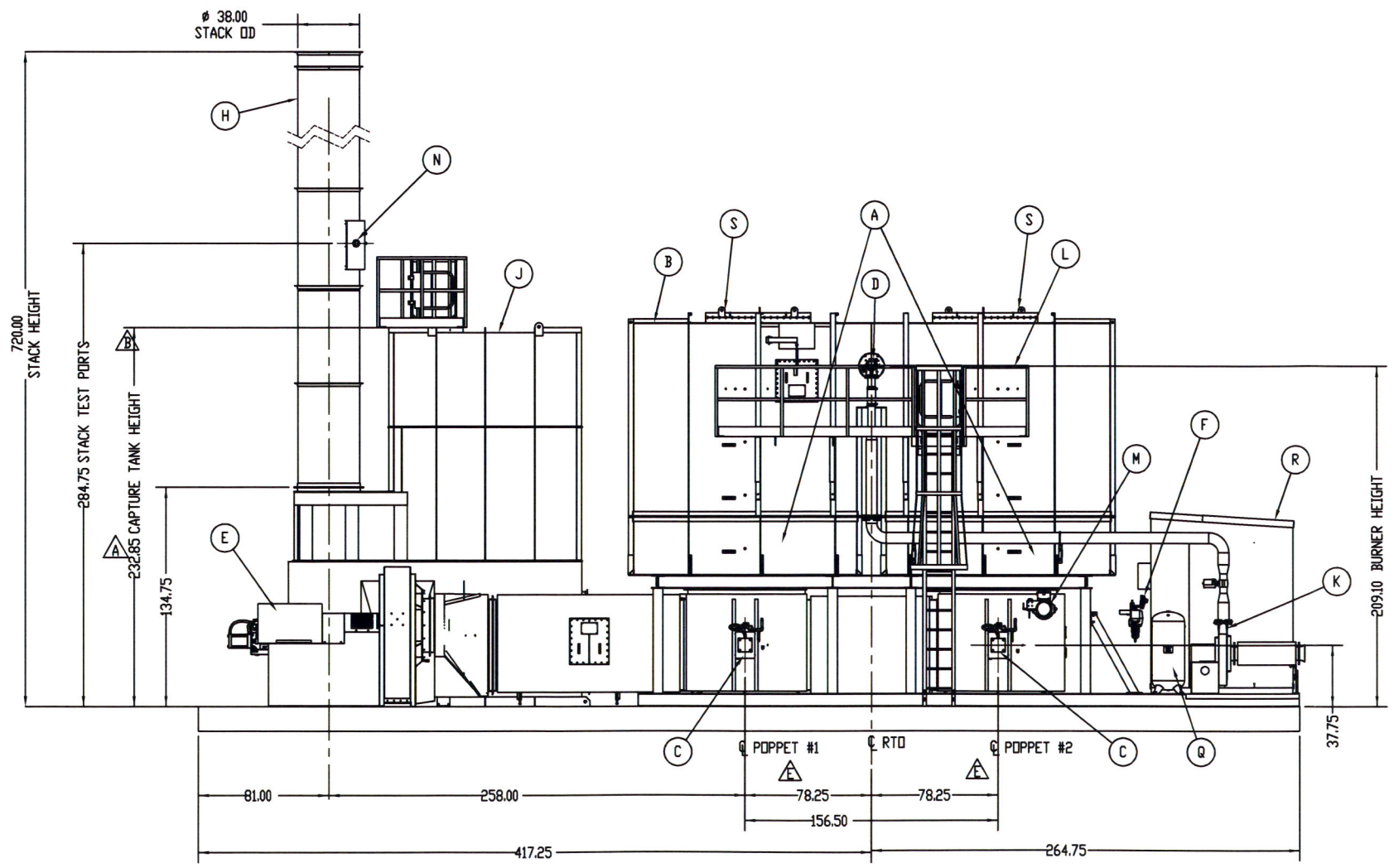
Attachment E - Manufacturer's Information
RTO1

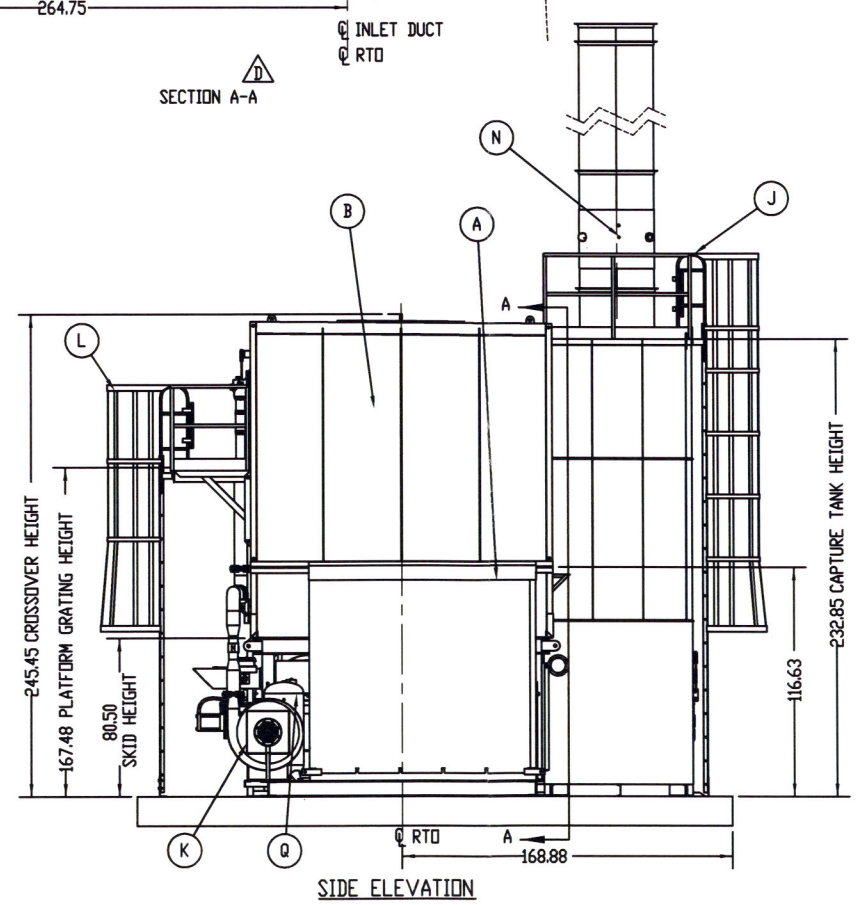




SECTION A-A



FRONT ELEVATION



SIDE ELEVATION

SUPPLIED BY TANN CORPORATION

A. (2) ENERGY RECOVERY CHAMBERS.
B. (1) BURNER CHAMBER.
C. (2) TWO CYCLE POPPET VALVES.
D. (1) BURNER 2,400,000 MAX. BTU/HR.
E. (1) OXIDIZER FAN WITH 150 HP. TEFC MOTOR.
F. (1) WEATHER RESISTANT GAS TRAIN.
G. (1) FRESH AIR DAMPER ø 18.00" (NOT SHOWN).
H. (1) EXHAUST STACK ø 30.0" x 60.0'FT. TALL.
J. (1) CAPTURE TANK.
K. (1) COMBUSTION BLOWER.
L. (1) BURNER ACCESS PLATFORM.
M. (2) BAKE-OUT DAMPER ø 10.00"
N. (2) TEST PORTS.
Q. (1) COMPRESSED AIR RESERVOIR.
R. (1) CONTROL ROOM.
S. (2) MEDIA LOADING DOORS, 65.00" x 65.00"

WEIGHTS (ESTIMATES)

CROSSOVER DUCT = 15,000 LBs.
OXIDIZER CHAMBERS (WITHOUT MEDIA) = 7,300 LBs./EA.
OXIDIZER CHAMBERS (WITH MEDIA) = 33,700 LBs./EA.
FAN AND MOTOR = 8,000 LBs.
POPPET VALVES = 5,000 LBs./EA.
STACK = 2,700 LBs.
CAPTURE TANK = 10,000 LBs.
STRUCTURE = 7,000 LBs.
INTERCONNECTING DUCTWORK = 3,000 LBs./EA.
MEDIA = 37,600 LBs./TANK

OXIDIZER UTILITY REQUIREMENTS:

GAS:
TYPE = NATURAL GAS
MAXIMUM FLOW = 2,400 CFH.
INLET PRESSURE = 10 PSIG.
RTO GAS SUPPLY CONNECTION = 2.0" DIA.

ELECTRICAL = (SEE ELEC. PRINTS FOR COMPLETE DETAILS)
VOLTS = 480 v.

COMPRESSED AIR :
AIR PRESSURE = 100 PSIG.
DEWPOINT = (-40F).
FLOW = 24 CFH.

TANN CORPORATION

PROPRIETARY AND CONFIDENTIAL.
THIS DOCUMENT IS CONFIDENTIAL PROPRIETARY INFORMATION OF TANN CORPORATION. NO DISCLOSURE TO ANY THIRD PARTY MAY BE MADE WITHOUT APPROVAL OF TANN CORPORATION.

UNLESS OTHERWISE SPECIFIED:
TOLERANCES:
FRACTIONAL ±1/16
ANGULAR ± 1/2°
TWO PLACE DECIMAL ±0.03
THREE PLACE DECIMAL ±0.005
WEIGHT: 125,000
MATERIAL: PER DETAIL PARTS
FINISH: ASSEMBLY

	NAME	DATE
DRAWN		
CHECKED		
APPROVED		
QUOTE NO.		
FILE LOCATION		

TITLE: GENERAL ARRANGEMENT, TR1595C

SIZE D | DWG. NO. 1020-20-100-A01 | REV

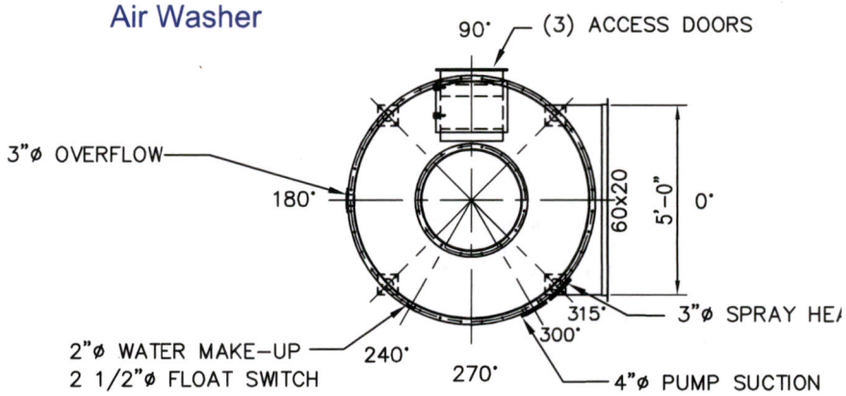
SCALE: 1:50 | SHEET 1 OF 1

Air Washer

NOTES:

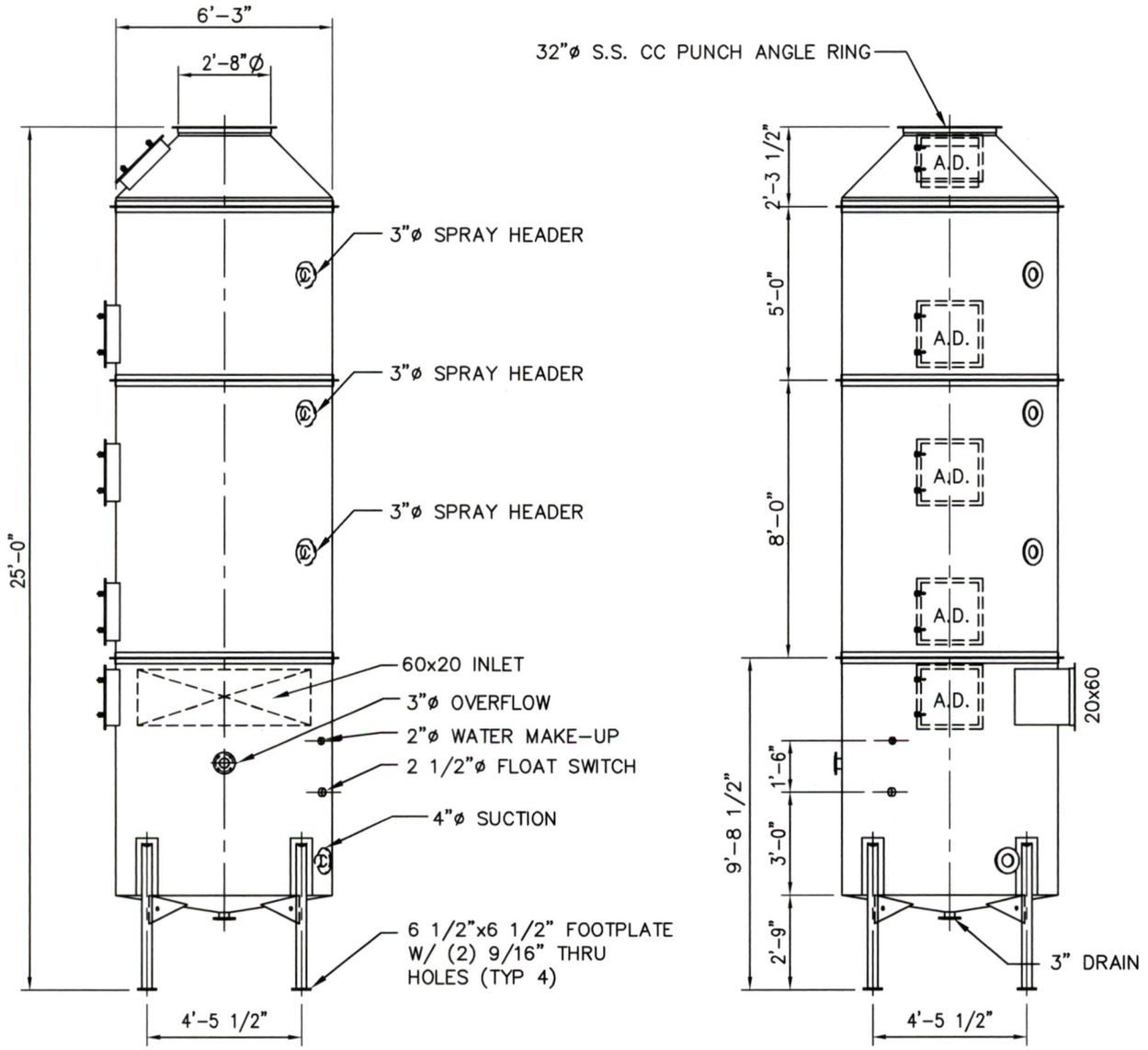
1. UNIT SHIPPING WEIGHT IS 4,980 LBS.
2. UNIT FLOODED WEIGHT IS 14,875 LBS.
3. TANK NOZZLE: BETE TF64.
4. MIST ELIMINATOR: MUNTERS T-271 PP.
5. FLOAT SWITCH: JO-BELL L-1-53-1-44A.
6. COMPONENTS AND SIZING ARE PRELIMINARY

SOURCE	FLOW RATE
RECIRC	200 GPM
BLOWDOWN	1 GPM



ORIENTATION OF SCRUBBER

SCALE: 3/16" = 1'-0"

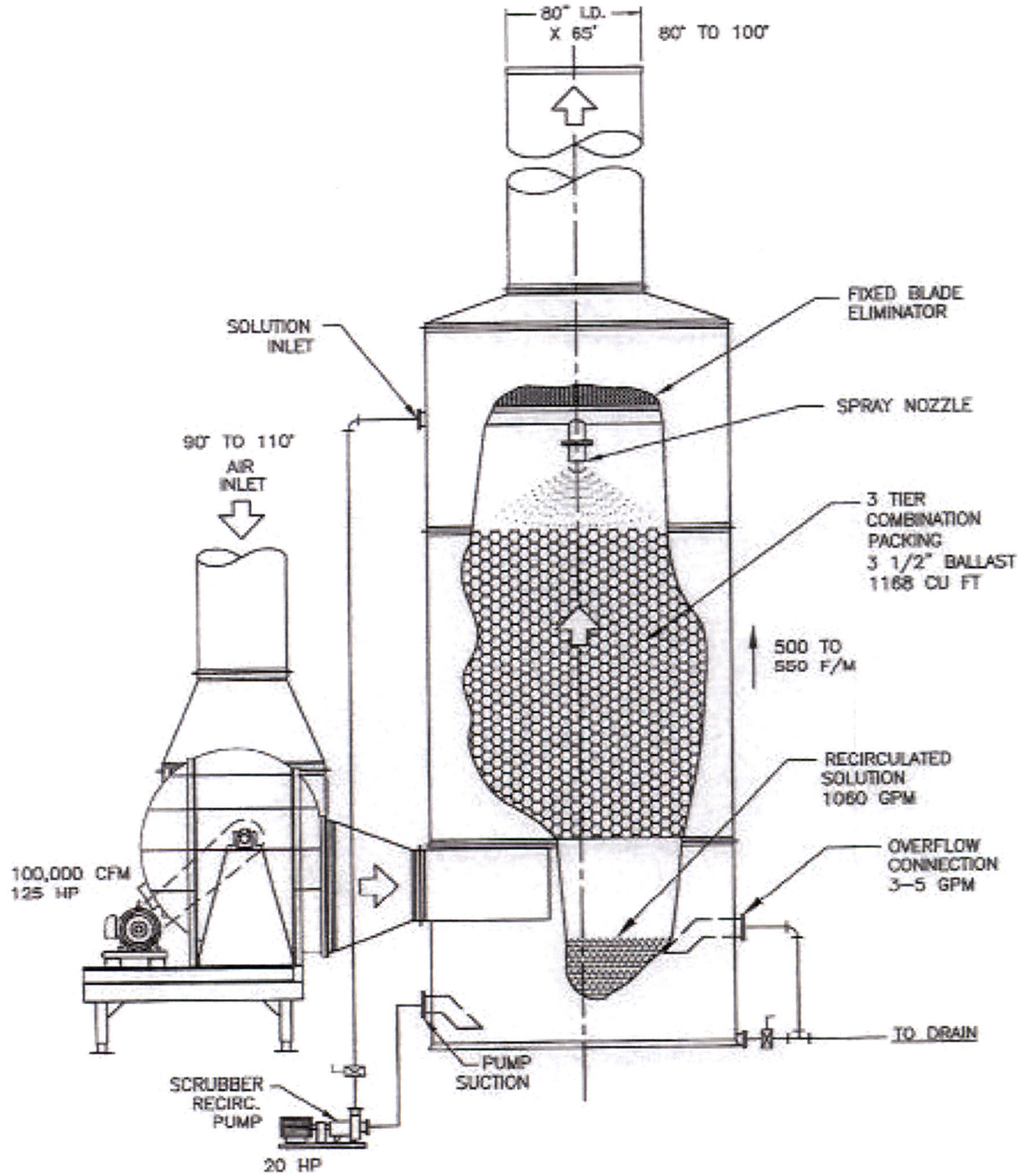


ELEVATION OF SCRUBBER

SCALE: 3/16" = 1'-0"

RENDEQ, Inc.
1813 Frank S. Holt Dr., Burlington, NC 27215
Phone: (336) 226-1160; Fax (336) 270-5357
E-mail: rendeq@bellsouth.net or chip@rendeq.com
Web Site: www.rendeq.com

SUBJECT RASCU-100 51 & 52
TYPICAL SCRUBBER ARRANGEMENT
PUSH THRU



RENDEQ, INC.

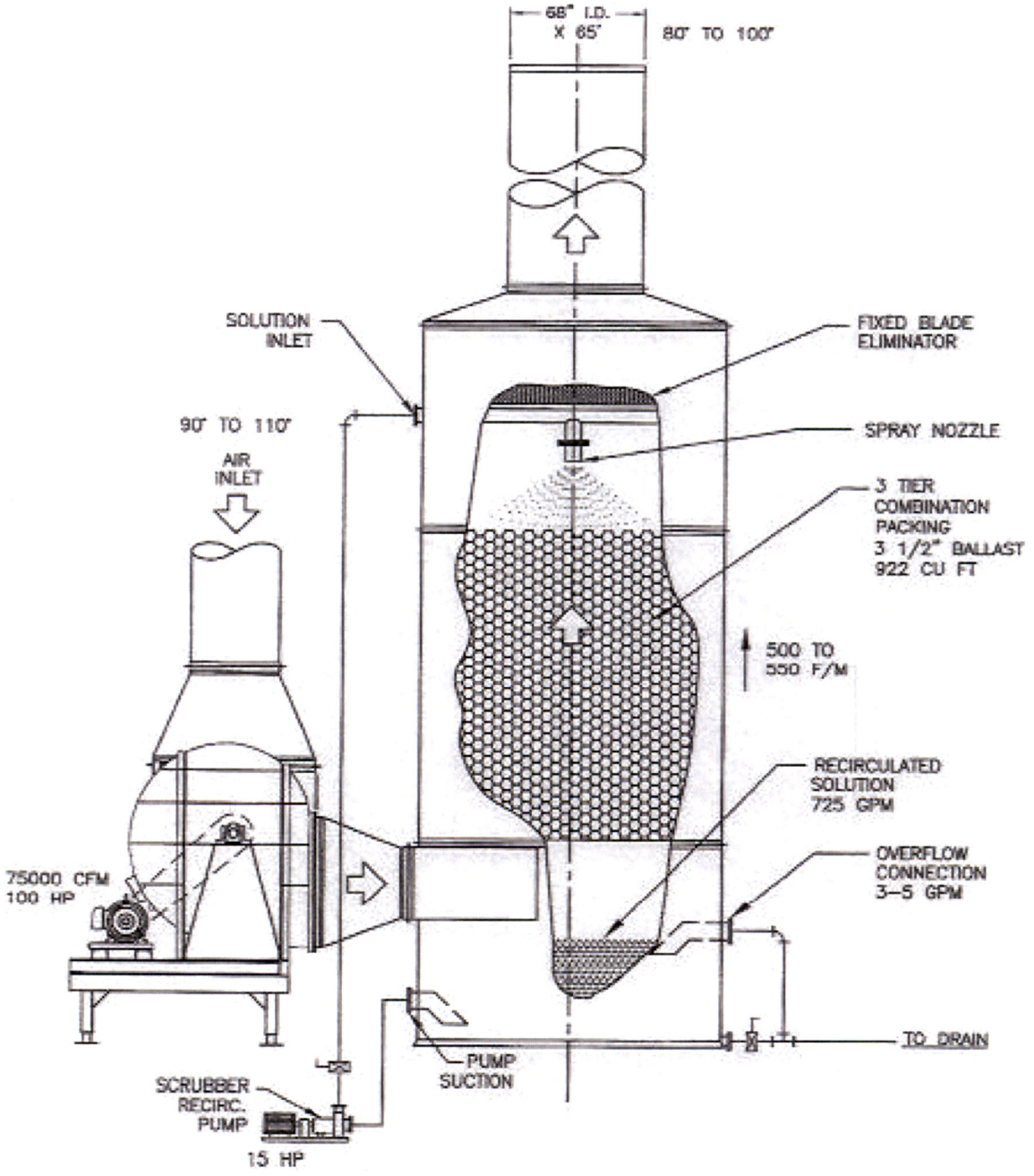
ROOM AIR SCRUBBER SPECIFICATIONS

MODEL NO. RASCU-100

SCRUBBER TYPE:	VERTICAL FLOW PACKED BED
CAPACITY:	100,000 CFM
APPROXIMATE AIR INLET TEMP.:	100 °F.
APPROXIMATE AIR OUTLET TEMP.:	90 °F.
SCRUBBER DIMENSIONS	13-6x26-4 1/2
PACKING (POLYPROPYLENE BALLAST - 3 TIER)	3 1/2"
PACKING DEPTH	8 ft
PACKING CU. FT.	1,168
AIR INLET AREA	47.91 sq. ft.
AIR OUTLET DIAMETER	80"
AIR VELOCIY THROUGH PACKING	500 to 550 F/M (AT RATED CAPACITY)
LIQUID RECYCLE RATE	1060 gpm
APPROXIMATE LIQUID RECYCLE TEMP.	90
ESTIMATED WATER MAKE-UP	4-7 GPM
RESIDUAL RECYCLE CHLORINE	20-50 PPM
pH OF RESIDUAL LIQUID	7.0-10.2
CHEMICAL REQUIRED:	NaOCl 5% SOLUTION NaOH 50% SOLUTION
SCRUBBER HOUSING MATERIAL (ABOVE SUMP)	304 S.S
SCRUBBER SUMP MATERIAL	316 S.S
SCRUBBER FAN MATERIAL	304 S.S. (PARTS IN CONTACT WITH AIR STREAM)
SCRUBBER FAN HP	125.00
SCRUBBER PUMP MATERIAL	316 S.S.
SCRUBBER PUMP HP	20.00
MIST ELIMINATOR TYPE	FIXED BLADE
MIST ELIMINATOR MATERIAL	NORYL
APPROXIMATE OPERATING WT.	42,200 lbs.

RENDEQ, Inc.
1813 Frank S. Holt Dr., Burlington, NC 27215
Phone: (336) 226-1100; Fax (336) 270-5357
E-mail: rendeq@bellsouth.net or chip@rendeq.com
Web Site: www.rendeq.com

SUBJECT RASCU-075 53
TYPICAL SCRUBBER ARRANGEMENT
PUSH THRU



Attachment E - Manufacturer's Information
Scrubber #3

RENDEQ, INC.

ROOM AIR SCRUBBER SPECIFICATIONS

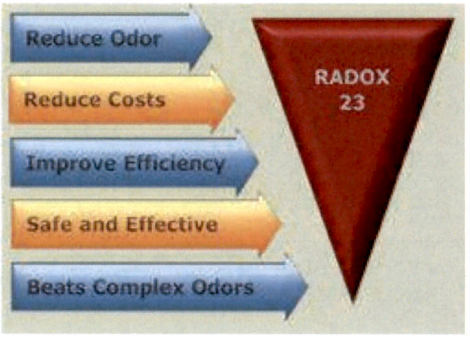
MODEL NO. RASCU-075

SCRUBBER TYPE:	VERTICAL FLOW PACKED BED	
CAPACITY:	75,000 CFM	
APPROXIMATE AIR INLET TEMP.:	100 °F.	
APPROXIMATE AIR OUTLET TEMP.:	90 °F.	
SCRUBBER DIMENSIONS	12x25-5 1/2	
PACKING (POLYPROPYLENE BALLAST - 3 TIER)	3 1/2"	
PACKING DEPTH	8 ft	
PACKING CU. FT.	922	
AIR INLET AREA	37.33 sq. ft.	
AIR OUTLET DIAMETER	68"	
AIR VELOCIY THROUGH PACKING	500 to 550 F/M (AT RATED CAPACITY)	
LIQUID RECYCLE RATE	725 gpm	
APPROXIMATE LIQUID RECYCLE TEMP.	90	
ESTIMATED WATER MAKE-UP	3-6 GPM	
RESIDUAL RECYCLE CHLORINE	20-50 PPM	
pH OF RESIDUAL LIQUID	7.0-10.2	
CHEMICAL REQUIRED:	NaOCl 5% SOLUTION	NaOH 50% SOLUTION
SCRUBBER HOUSING MATERIAL (ABOVE SUMP)	304 S.S	
SCRUBBER SUMP MATERIAL	316 S.S	
SCRUBBER FAN MATERIAL	304 S.S. (PARTS IN CONTACT WITH AIR STREAM)	
SCRUBBER FAN HP	100.00	
SCRUBBER PUMP MATERIAL	316 S.S.	
SCRUBBER PUMP HP	15.00	
MIST ELIMINATOR TYPE	FIXED BLADE	
MIST ELIMINATOR MATERIAL	NORYL	
APPROXIMATE OPERATING WT.	33,700 lbs.	

Attachment E - Manufacturer's Information

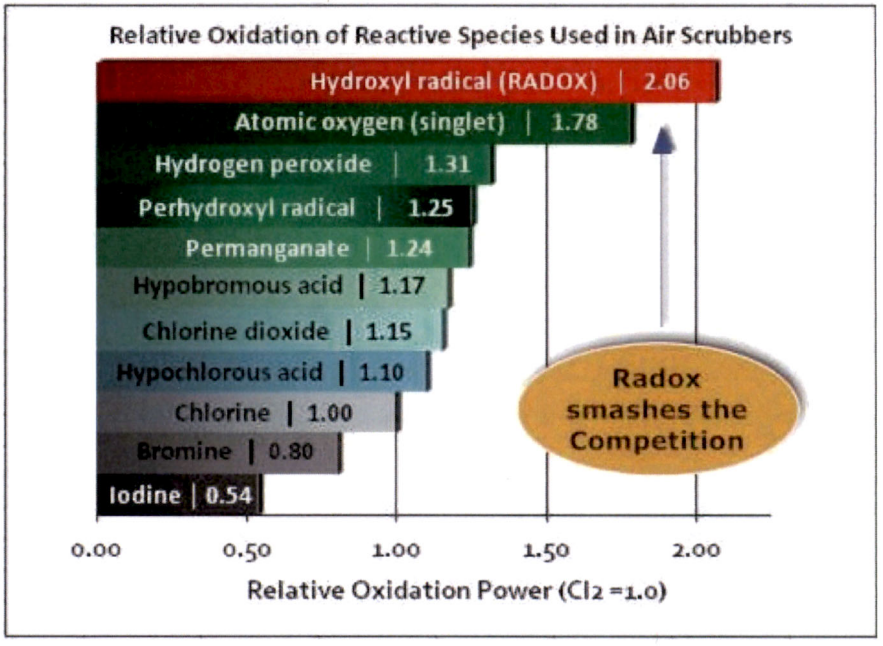
STEEN RESEARCH, LLC
Innovations in Chemistry and Engineering

Odor and VOC Control Technologies



RADOX-23: The Clear Leader in Air Scrubber Technology

Steen Research holds the exclusive patents on hydroxyl radical generation, RADOX-23, the strongest oxidizer known for use in air scrubbers. Compare the strength of RADOX-23 to the leading super-oxidizers:



RADOX-23 is proven highly effective in drastically reducing odor emissions and is unmatched in reducing facility operational costs. **RADOX-23** utilizes advanced oxidation methodology to eliminate noxious odor causing compounds, VOCs, and environmentally detrimental by-products such as haloamines and trihalomethanes. **RADOX-23** contains state of the art surfactancy and dispersion power to clean and maintain aqueous air scrubber systems.

Abstract From USDA Study

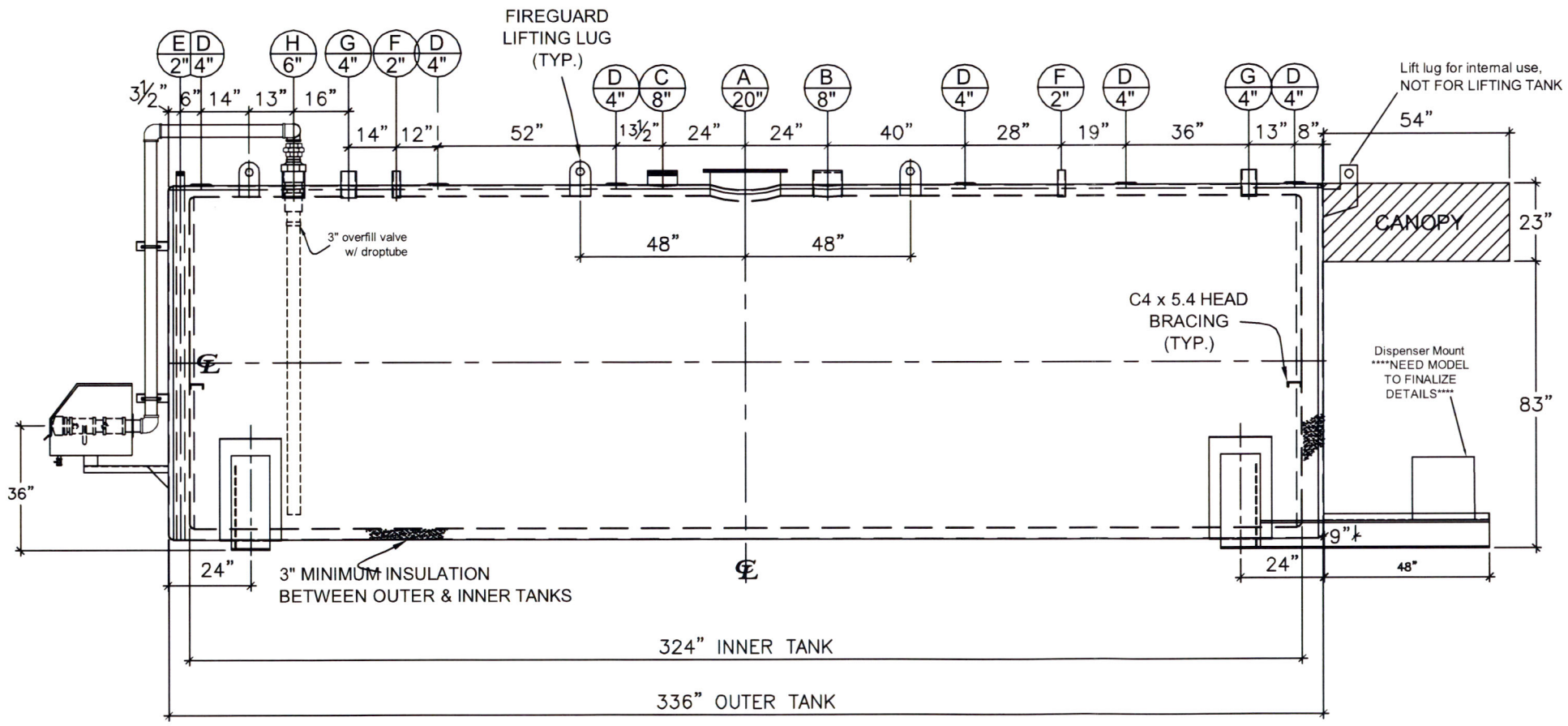
"The **RADOX** catalyst was shown to be significantly more effective than chlorine dioxide (ClO_2) for reducing the concentration of malodorous VOC and total VOC emitted from poultry rendering. Samples from **RADOX**-treated air streams had (1) a 42±14% (the average plus or minus the standard deviation) higher concentration of carbon dioxide (CO_2), (2) 69±9% lower concentrations of the highly aldehyde compounds, and (3) 52±13% lower total VOC when compared to untreated, or ClO_2-treated samples. The concentration of highly malodorous aldehyde compounds, which were responsible for a majority of the poultry rendering odor, were not changed by the ClO_2 treatment.

Additionally, there was a 5-fold higher concentration of indole in the ClO_2 samples when compared to **RADOX**-treated samples. This is important because indole is a highly odorous metabolite from protein degradation that has an odor threshold of 0.0019 mg/m3 (Zahn et al., 2001). The **RADOX** treatment reduced the total perceived odor intensity by 74±19%, while the ClO_2 treatment did not significantly alter the odor intensity."

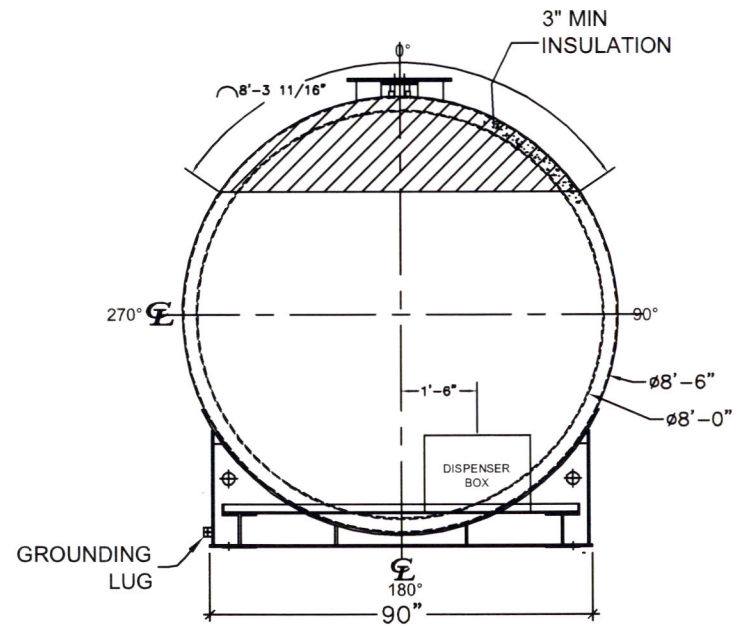
From the USDA study Effect Of A Packed-Bed Scrubber Using Radox Catalyst On The Emission of Odors And Volatile Organic Compounds From A Commercial Poultry Rendering Plant by Zahn et al., 2002

NOZZLE SCHEDULE

ITEM	SIZE	RATING	TYPE	MATL.	PROJ. IN	PROJ. OUT	REMARKS	NOTES
A	20"	U.L.	M.W.	C.S.	STD.	STD.	SINGLE PUNCHED	TIGHT BOLTED
B	8"	N.P.T.	CPL.	C.S.	STD.	STD.	PRIMARY	EMERGENCY VENT OPENING
C	8"	N.P.T.	CPL.	C.S.	STD.	STD.	SECONDARY	EMERGENCY VENT OPENING
D	4"	N.P.T.	W.F.	C.S.	STD.	STD.	-	INTERSTICE FILL
E	2"	N.P.T.	PIPE	C.S.	STD.	STD.	-	MONITORING PORT
F	2"	N.P.T.	CPL.	C.S.	STD.	STD.	-	-
G	4"	N.P.T.	CPL.	C.S.	STD.	STD.	-	-
H	6"	N.P.T.	CPL.	C.S.	STD.	STD.	-	-



FRONT VIEW



RIGHT SIDE

NOTES:

A. Quantity:
B. Material: H.R. Carbon Steel.
C. Design Pressure: Atmospheric.
D. Design Temperature: Ambient.
E. Built & labeled per U.L. #142, #2085 & STI Fireguard Specifications.
F. Interstice to be filled w/ 3" min. thermal insulation per Fireguard specs.
G. Exterior: Blast & apply one shop coat WHITE enamel.
H. All fittings to be labeled and protected for shipment.
I. Customer to verify nozzle sizes, locations and quantities.
J. Saddles/skids may require shimming or grouting during installation.

*All pages of this Schedule A are incorporated by reference and are a part of the additional terms of the Master Terms & Conditions of Sale. www.newberrytanks.com/masterterms.pdf

APPROVAL FOR CONSTRUCTION
SCHEDULE A - MASTER TERMS & CONDITIONS OF SALE*

☐ APPROVED AS DRAWN.
☐ APPROVED WITH NOTED CHANGES, CONSTRUCTION WILL BE SCHEDULED WHEN SIGNED DRAWING AND CONFIRMED ORDER ARE RECEIVED.

SIGNATURE:_____
DATE:_____

SALES ORDER# 76056

Newberry Tanks
Phone: 870-735-4473 Fax: 870-735-3982

VESSEL DESCRIPTION:
10000 Gallon 96" I.D. x 27'-0" O.A.L. Fireguard Saddle Tank

CUSTOMER:			P.O.#
PILGRIMS PRIDE			
DATE: 3/29/18	SCALE:	DWG.# NB10000FGD096250	DRAWN BY: GP
			CHKD. BY: HM

Newberry Tanks & Equipment, LLC 205 North Walker West Memphis, AR. 72301 870-735-4473 www.newberrytanks.com

This drawing may contain CONFIDENTIAL information and is intended only for the use of the specific individual(s) to which it is addressed.

Attachment F

Emission Factors and References (Redacted)

REDACTED

Emissions Factors and References

Attachment G

Federal and State Regulations

Attachment G – Federal and State Regulations
Pilgrim's Pride Corporation
Animal Feed Ingredients Plant
Gadsden, Alabama

Prevention of Significant Deterioration (PSD) Applicability

The PSD regulations are contained in 40 CFR 52.21 and 335-3-14-.04. The Facility does not belong to any one of the 28 source categories listed in the regulations. The Facility's maximum controlled emissions will be less than 250 tons per year.

Compliance Assurance Monitoring (CAM) Applicability

CAM requirements are contained in 40 CFR 64. We believe there are no Pollutant Specific Emission Units (PSEU's), that when considered separately, have the potential to emit greater than 100 tons/year. Proposed air pollution control device monitoring parameters are included on the respective Form 110's.

Regulations

Boiler #1 – 1,600 HP Boiler; Boiler #2 – 1,600 HP Boiler; Boiler #3 – 1,600 HP Boiler

- 40 CFR 60, Subpart Dc
  40 CFR 60.48c(g)(3), 40 CFR 60.48c(i)
- 40 CFR 63, Subpart JJJJJJ – **Not Applicable**
  Boilers are defined as "gas-fired boilers" under 40 CFR 63 - Subpart JJJJJJ and will therefore not be subject to 40 CFR 63 - Subpart JJJJJJ (per 40 CFR 63.11195 and 40 CFR 63.11237).
- 335-3-4-.03 (PM: Fuel Burning Equipment - Class I County)
- 335-3-5-.01 (SOx: Fuel Combustion - Category II County)

Animal Feed Ingredients Processing Operations

- 335-3-4-.04 (PM: Process Industries General - Class I County)
- 335-3-5-.05 (SOx: Process Industries General - Category II County)
- 335-3-6-.03 (Loading and Storage of VOC) – **Not Applicable.** Diesel fuel and poultry fat have a true vapor pressure less than 1.5 psia.

There are no known NSPS or NESHAP regulations pertaining to animal feed ingredient production operations.

Entire Facility

- 335-3-4-.01 (PM: Fugitive Emissions)
- 335-3-4-.02 (PM: Fugitive Dust and Fugitive Emissions)

General Permitting Procedures

- 335-3-14 (As applicable)
- 335-3-16 (As applicable)

*Other federal and state regulations may apply in addition to those shown above. Please note that there are no plans to install emergency generators or other stationary internal combustion engines at this time.

Attachment H

Compliance Plan and Certification

Attachment H - Compliance Plan and Certification
Pilgrim's Pride Corporation
Animal Feed Ingredients Plant
Gadsden, AL

Compliance Plan

This Compliance Plan is in general accordance with the Alabama Department of Environmental Management (ADEM) Administrative Code Regulation (ACR) 335-3-16-.04(8)(h). Pilgrim's Pride Corporation (Pilgrim's) will comply with the applicable requirements identified in this permit application for the Gadsden Facility.

1) Pilgrim's is constructing the Facility to comply with known regulations and requirements as shown in **Attachment G – Federal and State Requirements** and summarized on Form 103. The Facility will comply with these requirements upon startup.

2) Current Compliance Status - Not Applicable

3) Pilgrim's will meet new applicable requirements that may become effective during the permit term in a timely manner. If required, Pilgrim's will provide a detailed schedule for compliance with new/future permit terms.

4) The following measures will be taken on every **operating** day to ensure ongoing compliance with the above regulations:

   ✓ Monitoring of Scrubber #1 performance including, but not limited to:
   - Scrubbant recirculation rate: 1,000-1,250 gpm
   - Scrubbant ORP: To Be Determined
   - Scrubbant pH, as applicable
   - Differential pressure across scrubber: 1"-6" w.c.

   ✓ Monitoring of Scrubber #2 performance including, but not limited to:
   - Scrubbant recirculation rate: 1,000-1,250 gpm
   - Scrubbant ORP: To Be Determined
   - Scrubbant pH, as applicable
   - Differential pressure across scrubber: 1"-6" w.c.

   ✓ Monitoring of Scrubber #3 performance including, but not limited to:
   - Scrubbant recirculation rate: 600 – 750 gpm
   - Scrubbant ORP: To Be Determined
   - Scrubbant pH, as applicable
   - Differential pressure across scrubber: 1"-6" w.c.

   ✓ Monitoring of RTO performance including, but not limited to:
   - Combustion zone temperature: 1,400 °F – 1,600 °F

   ✓ Monitoring of Air Washer performance including, but not limited to:
   - Water recirculation rate: Meet a minimum rate of 150 gpm.

Attachment H - Compliance Plan and Certification
Pilgrim's Pride Corporation
Animal Feed Ingredients Plant
Gadsden, AL

- ✓ Monitoring of Boiler #1, #2 and #3 performance including, but not limited to:
  - Records of Facility-wide natural gas use
  - Records of construction and start-up

- ✓ Facility-wide monitoring including, but not limited to:
  - Records of finished meal production
  - Records of finished poultry fat
  - Records of moisture content in finished animal feed ingredient meals and fat

Annual Compliance Certification

The Facility will annually submit to ADEM a document certifying the compliance status relative to the requirements of the Title V Operating Permit. The Annual Title V Compliance Certification will be made using forms/templates as provided by ADEM.

Certification of Truth, Accuracy and Completeness

Based on information and belief formed after reasonable inquiry, the statements and information in this Permit Application document are true, accurate, and complete.

[signature]	7/30/20
Mark Glover Head of By Product/MSC	Date

Attachment I

Trivial and Insignificant Activities List

Attachment I - Trivial and Insignificant Activities List
Pilgrim's Pride Corporation
Animal Feed Ingredients Plant
Gadsden, AL

Trivial activities that may be present at the Pilgrim's facility include but are not limited to:

A. Fuel Use:

(1) Fuel burning equipment of less that 500,000 Btu/hour capacity,

(2) Production of hot water for on-site personal use not related to any industrial process; and

(3) Fuel use related to food preparation for on-site consumption.

B. Plant Upkeep:

(1) Routine housekeeping or plant upkeep activities such as painting buildings, retarring roofs or paving parking lots; and

(2) Clerical activities such as use of office supplies or operating copy machines and document printers, except operation of such units on a commercial basis.

C. Fabrication Operations:

(1) Equipment used for the inspection of metal products;

(2) Equipment used exclusively for forging, pressing, drawing, spinning, or extruding cold metals;

G. Cleaning Operations: Alkaline/phosphate cleaners and associated cleaners and associated burners.

K. Miscellaneous:

(3) Fugitive dust emissions from operations of a passenger automobile, station wagon, pickup truck, van or any other vehicle not exclusively operated at a stationary source.

(5) Air compressors

M. Internal combustion engines in mobile vehicles

N. Non-contact water cooling towers

O. Small capacity storage (tote bins, drums)

P. Steam-only vent lines

Q. Trivial Activities of the Pulp and Paper Industry (can be used by other industries if applicable)

(29) Parts washer

(45) Sodium hypochlorite storage tanks

(49) Sulfuric acid tanks

R. Trivial Activities of the Electrical Generating Industry (can be used by other industries if applicable)

(1) Fuels and Material Handling

a. Gasoline and fuel oil transfer and dispensing

(2) Water and wastewater treatment, handling and storage process

(4) Maintenance

b. Activities related to the construction and routine maintenance and repair of facility where emissions would not be associated with a primary production process of the facility (e.g., cleaning, insulation, solvent use, steam cleaning, painting, degreasing, washing, welding, vacuuming, coating, sweeping, abrasive use, removal of insulation).

c. HVAC and refrigeration

d. Vehicle and machinery (includes sanding, grinding, cleaning, painting, buffing and polishing of equipment).

U. Trivial Activities of the Textile Industry (can be used by other industries if applicable)

(3) Used oil storage and handling.

(7) Non-routine clean out of tanks and equipment for purposes of worker entry or in preparation for maintenance or decommissioning.

V. Trivial Activities of Iron & Steel Foundries (can be used by other industries if applicable)

(3) Cooling Ponds

(6) Dumpster

(13) Oiling and Greasing for Maintenance

(17) Process (non-contact) Water Cooling Towers and Lagoons

W. Trivial Activities of Secondary Aluminum Industries (can be used by other industries if applicable)

(1) Waste or Used Oil Tanks Less Than 10,000 gal

(7) Sodium Hypochlorite Tanks

(8) Sodium Hydroxide Tanks

(9) Kerosene Tanks Less Than 10,000 gal

(12) Diesel Tanks Less Than 10,000 gal

(14) Polymer Tanks for Wastewater Treatment

X. Trivial Activities of the Petroleum Refining Industry (can be used by other industries if applicable)

(1) Fuels and Material Handling

a. Gasoline, diesel, and fuel oil dispensing to mobile sources/emergency equipment/maintenance equipment

b. Petroleum storage tanks, <250 barrels, not subject to NSPS, and associated containment

(2) Stormwater System

a. Non-process sumps

b. Open or covered drainage troughs from process areas for rainwater handling

(4) Maintenance

a. Activities related to the construction, maintenance, and repair of the facility where emissions would not be associated with a primary production process of the facility (e.g., cleaning, insulation, solvent use, steam cleaning, equipment draining and steam out, painting, degreasing, washing, welding, cutting, vacuuming, coating, sweeping, abrasive use, and removal of non-asbestos insulation)

b. HVAC and refrigeration

g. Asphalt or concrete paving activities and maintenance

h. Plant vehicle and equipment maintenance

i. Pest and weed control

<u>Insignificant activities</u> that may be present at the Pilgrim's facility include but are not limited to:

B. Fabrication Operations: Equipment used exclusively for forging, pressing, drawing, spinning, or extruding hot metals.

F. Emissions form a laboratory, as defined in this item. "Laboratory" means a place or activity devoted to experimental study or teaching in any science, or to the testing and analysis of drugs, chemicals, chemical compounds, or other substances, or similar activities described in this sentence are conducted on a laboratory scale. Activities are conducted on a laboratory scale if the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. If a facility manufactures or produces products for profit in any quantity, it may not be considered to be a laboratory under this item. Support activities necessary to the operation of the laboratory are considered to be part of the laboratory. Support activities do not include the provision of power to the laboratory from sources that provide power to multiple projects or from sources which would otherwise require permitting, such as boilers that provide power to an entire facility.

G. Miscellaneous:

(3) Brazing, soldering or welding equipment;

(4) Blueprint copiers and photographic processes;

I. Insignificant Activities of the Electrical Generating Industry (can be used by other industries if applicable)

(2) Cooling towers

(4) Operations

a. Boiler room ventilation

N. Insignificant Activities of the Petroleum Refining Industry (can be used by other industries if applicable)

(1) Operations