AECOM
10 Patewood Drive, Bldg. VI, Suite 500
Greenville, SC 29615
www.aecom.com

864 234 3000 tel
864 234 3069 fax

Mike D.

March 15, 2017

RECEIVED
MAR 16 2017
BUREAU OF AIR QUALITY

Engineering Services Director
Bureau of Air Quality
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Air Permit # 1940-0022

RE: South Carolina Pet Solutions, LLC
Ward, Saluda County, South Carolina
Air Quality Construction Permit Application

Dear Sir or Madame:

AECOM has been retained by South Carolina Pet Solutions, LLC to assist with preparation and submittal of an air quality construction permit for their facility located at 1299 Duncan Road, Ward, South Carolina. AECOM has prepared this submittal to assist the South Carolina Department of Health and Environmental Control (SCDHEC), Bureau of Air Quality (BAQ) in reviewing the construction permit for this project. This application includes certain proprietary information related to South Carolina Pet Solutions, LLC's processes, production capabilities and marketing of its products. This information is protected in the normal course of business and is accessible to only a limited number of employees of South Carolina Pet Solutions, LLC. South Carolina Pet Solutions, LLC therefore asserts that this information is exempt from disclosure as a public record pursuant to S.C. CODE ANN. §§ 30-4-40(1) and 48-1-270 and the South Carolina Department of Health and Environmental Control Confidentiality Policy.

In order to protect the information over which South Carolina Pet Solutions, LLC asserts its claim of confidentiality, a complete application package is being provided under seal, and we are enclosing a redacted version of the application to be made available in response to requests pursuant to the Freedom of Information Act. This submittal includes the following:

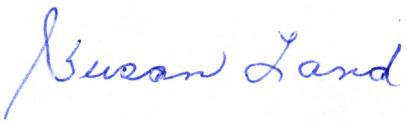
- **two (2) Redacted Copies of the Air Quality Construction Permit Application Package,**
- **one (1) Confidential Copy of the Air Quality Construction Permit Application Package with all confidential pages marked,**
- **one (1) CD with electronic copies of both the confidential and redacted copies of the application and**
- **one (1) CD with electronic copies of the air dispersion modeling.**

AECOM

Please do not hesitate to call me at 803-354-0382 if you have any questions, comments, or need any additional information concerning the Air Quality Construction Permit Application Package.

Very truly yours,

AECOM Corporation



Susan Land, P.E.
Senior Project Enigneer

Enclosures

cc: Kyle Hutton, SCP

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BUREAU OF AIR QUALITY

dhec

Bureau of Air Quality
Expedited Review Request Instructions
Construction Permits
Page 1 of 1

APPLICATION IDENTIFICATION		
Facility Name *(This should be the name used to identify the facility)* SC Pet Food Solutions, LLC	SC Air Permit Number (8-digits only) *(Leave blank if one has never been assigned)* - 1940-0022	Request Date

PRIMARY AIR PERMIT CONTACT			
Title/Position: General Manager	Mr.	First Name: Kyle	Last Name: Hutton
E-mail Address: khutton@3dsolutions.com		Phone No.: (423) 580-6834	Cell No.: ( ) -

SECONDARY AIR PERMIT CONTACT *(If the Department is unable to contact the primary air permit contact please provided a secondary contact.)*			
Title/Position: VP of Operations	Salutation	First Name: Scott	Last Name: Clawson
E-mail Address: sclawson@3dsolutions.com		Phone No.: (417) 699-7090	Cell No.: ( ) -

Check One	Permit Type	Expedited Review Days*	Fee**
☒	Minor Source Construction Permit	30	$3,000
☐	Synthetic Minor Construction Permit	65	$4,000
☐	Prevention of Significant Deterioration (PSD) Not impacting a Class I Area (no Class I modeling required)	120	$20,000
☐	Prevention of Significant Deterioration (PSD) Impacting a Class I Area (Class I modeling required)	150	$25,000
☐	**Concrete** Minor Source Construction Permit Relocation Request	10	$1,500
☐	**Asphalt** Synthetic Minor Construction Permit Relocation Request	15	$3,500

*All days above are calendar days, but exclude State holidays, and building closure dates due to severe weather or other emergencies. Expedited days for asphalt and concrete also exclude weekends.

****DO NOT SEND PAYMENT UNTIL THE APPLICATION HAS BEEN ACCEPTED INTO THE EXPEDITED PROGRAM.** If chosen for expedited review, you will be notified by phone for verbal acceptance into the program. Fees must be paid within five business days of acceptance.

PRIMARY AIR PERMIT CONTACT SIGNATURE

I have read the most recent version of the Expedited Review Program Standard Operating Procedures and accept all of the terms and conditions within. I understand that it is my responsibility to ensure an application of the highest quality is submitted in a timely manner, and to address any requests for additional information by the deadline specified. I understand that submittal of this request form is not a guarantee that expedited review will be granted.

Kyle T Hutton — Signature of Primary Air Permit Contact

3/11/17 — Date

DHEC 2212 (2/2017)

AECOM

Environmental Services

Air Quality Construction Permit Application

AECOM Project No. 60517699
March 2017

PUBLIC

Prepared for:

SC Pet Food Solutions, LLC
1299 Duncan Road
Ward, South Carolina 29166

Table of Contents

Section 1

APPLICATION FORMS

RECEIVED
MAR 16 2017
BUREAU OF AIR QUALITY

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

Bureau of Air Quality
Construction Permit Application
Facility Information
Page 1 of 2

FACILITY IDENTIFICATION	
SC Air Permit Number (8-digits only) *(Leave blank if one has never been assigned)* - 1940-0022	Application Date March 15, 2017
Facility Name *(This should be the name used to identify the facility at the physical address listed below)* SC Pet Food Solutions, LLC	Facility Federal Tax Identification Number *(Established by the U.S. Internal Revenue Service to identify a business entity)* 81-2956976

FACILITY PHYSICAL ADDRESS		
Physical Address: 1299 Duncan Road		County: Saluda
City: Ward	State: SC	Zip Code: 29166
Facility Coordinates *(Facility coordinates should be based at the front door or main entrance of the facility.)*		
Latitude: 33°55'28.15"N	Longitude: 81°44'48.76"W	☐ NAD27 *(North American Datum of 1927)* Or ☒ NAD83 *(North American Datum of 1983)*

CO-LOCATION DETERMINATION
Are there other facilities in close proximity that could be considered co-located? ☒ No ☐ Yes*
List potential co-located facilities, including air permit numbers if applicable:

**If yes, please submit co-location applicability determination details in an attachment to this application.*

COMMUNITY OUTREACH
What are the potential air issues and community concerns? Please provide a brief description of potential air issues and community concerns about the entire facility and/or specific project. Include how these issues and concerns are being addressed, if the community has been informed of the proposed construction project, and if so, how they have been informed. Community outreach has included multiple informal meetings with residents of the surrounding area and members of the Saluda Fire Department. A public meeting organized by the community was attended by SC Pet Food Solutions leadership where many concerns regarding the project were addressed.

FACILITY'S PRODUCTS / SERVICES	
Primary Products / Services *(List the primary product and/or service)* Dehydrated protein products	
Primary SIC Code *(Standard Industrial Classification Codes)* 2077	Primary NAICS Code *(North American Industry Classification System)* 311613
Other Products / Services *(List any other products and/or services)*	
Other SIC Code(s):	Other NAICS Code(s):

AIR PERMIT FACILITY CONTACT *(Person at the facility who can answer technical questions about the facility and permit application.)*			
Title/Position: VP of Operations	Salutation: Mr.	First Name: Scott	Last Name: Clawson
Mailing Address: 1299 Duncan Road			
City: Ward		State: SC	Zip Code: 29166
E-mail Address: sclawson@3dsolutions.com		Phone No.: 417-699-7090	Cell No.:

One hard copy of the signed permit will be mailed to the designated Air Permit Contact.
If additional individuals need electronic copies of the permit, please provide their names and e-mail addresses.

Name	E-mail Address
Susan Land	susan.land@aecom.com

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

Bureau of Air Quality
Construction Permit Application
Facility Information
Page 2 of 2

CONFIDENTIAL INFORMATION / DATA
Does this application contain confidential information or data? ☐ No ☒ Yes*

If yes, include a sanitized version of the application for public review and **ONLY ONE COPY OF CONFIDENTIAL INFORMATION SHOULD BE SUBMITTED*

LIST OF FORMS INCLUDED *(Identify all forms included in the application package)*	
Form Name	**Included (Y/N)**
Expedited Review Request (DHEC Form 2212)	☒ Yes ☐ No
Equipment/Processes (DHEC Form 2567)	☒ Yes
Emissions (DHEC Form 2569)	☒ Yes
Regulatory Review (DHEC Form 2570)	☒ Yes
Emissions Point Information (DHEC Form 2573)	☒ Yes ☐ No (If No, Explain)

OWNER OR OPERATOR			
Title/Position: VP of Operations	Salutation: Mr.	First Name: Scott	Last Name: Clawson
Mailing Address: 1299 Duncan Road			
City: Ward		State: SC	Zip Code: 29166
E-mail Address: sclawson@3dsolutions.com		Phone No.: 417-699-7090	Cell No.:

OWNER OR OPERATOR SIGNATURE

I certify, to the best of my knowledge and belief, that no applicable standards and/or regulations will be contravened or violated. I certify that any application form, report, or compliance certification submitted in this permit application is true, accurate, and complete based on information and belief formed after reasonable inquiry. I understand that any statements and/or descriptions, which are found to be incorrect, may result in the immediate revocation of any permit issued for this application.

Scott Clawson — Signature of Owner or Operator

3/14/2017 — Date

PERSON AND/OR FIRM THAT PREPARED THIS APPLICATION *(If not the same person as the Professional Engineer who has reviewed and signed this application.)*			
Consulting Firm Name:			
Title/Position:	Salutation:	First Name:	Last Name:
Mailing Address:			
City:		State:	Zip Code:
E-mail Address:		Phone No.:	Cell No.:
SC Professional Engineer License/Registration No. (if applicable):			

PROFESSIONAL ENGINEER INFORMATION			
Consulting Firm Name: AECOM			
Title/Position: Sr. Project Engineer	Salutation: Mrs.	First Name: Susan	Last Name: Land
Mailing Address: 10 Patewood Drive, Building VI, Suite 500			
City: Greenville		State: SC	Zip Code: 29615
E-mail Address: susan.land@aecom.com		Phone No.: 803-354-0382	Cell No.: 803-354-0382
SC License/Registration No.: 13257			

PROFESSIONAL ENGINEER SIGNATURE

I have placed my signature and seal on the engineering documents submitted, signifying that I have reviewed this construction permit application as it pertains to the requirements of *South Carolina Regulation 61-62, Air Pollution Control Regulations and Standards.*

Susan S. Land — Signature of Professional Engineer

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 13257 SUSAN S. LAND

3/15/17 — Date

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

Bureau of Air Quality
Construction Permit Application
Equipment / Processes

APPLICATION IDENTIFICATION *(Please ensure that the information list in this table is the same on all of the forms and required information submitted in this construction permit application package.)*		
Facility Name *(This should be the name used to identify the facility)* SC Pet Food Solutions, LLC	SC Air Permit Number (8-digits only) *(Leave blank if one has never been assigned)* -	Application Date March 15, 2017

PROJECT DESCRIPTION
Brief Project Description (What, why, how, etc.): Manufacture of dehydrated protein products

ATTACHMENTS	
☒ Process Flow Diagram	Location in Application: Section 3
☒ Detailed Project Description	Location in Application: Section 2

EQUIPMENT / PROCESS INFORMATION

Equipment ID Process ID	Action	Equipment / Process Description	Maximum Design Capacity (Units)	Control Device ID(s)	Pollutants Controlled (Include CAS#)	Capture System Efficiency and Description	Emission Point ID(s)
ES-1 / 01	☒ Add ☐ Remove ☐ Modify ☐ Other	**Line A** consisting of raw bin, crusher, [redacted] orifice grinders, feed hopper, pre-heater, [redacted] fat polishing systems, [redacted] dryer, cooler, meal curing bin, milling plant, [redacted] stage evaporator, condenser, cooling tower, stickwater tank, concentrate tank, condensate tank, caustic soda tank, [redacted] meal silos, [redacted] fat storage tanks Five Scrubbers (5) and two (2) RTOs (Scrubbers and RTOs associated with all lines.)	Haarslev Industries Model 100K CFM Scrubbers – 100,000 cfm Haarslev Industries Model RTO-50 RTOs – 30,000 acfm Kice Model VR77 Fabric Filters - 6474 cfm	Scrubbers: CD-1, CD-2, CD-3, CD-4, CD-5 RTOs: CD-6, CD-7 Fabric Filter: CD-8	PM, PM_{10}, $PM_{2.5}$, Odor	Scrubbers collect room air only with >99% capture, average 90% control RTOs – 100% capture efficiency, >97% removal efficiency Inherent fabric filters – on cooler and milling plant – >99% capture, >99% control All controls are voluntary	S-1 thru S-7

ES-2 / 01	☒ Add ☐ Remove ☐ Modify ☐ Other	**Line B** consisting of [redacted] raw material silos, crusher, double feed hopper, wet grinder, three (3) stage evaporator, cooling tower, shell & tube condenser [redacted] centrifuges, fat day tank, fat polishing, fat press, cooler, meal curing bin, milling plant, [redacted] product silos, Five Scrubbers (5) and two (2) RTOs (Scrubbers and RTOs associated with all lines.)	Haarslev Industries Model 100K CFM Scrubbers – 100,000 cfm Haarslev Industries Model RTO-50 RTOs – 30,000 acfm Kice Model VR77 Fabric Filters - 6474 cfm	Scrubbers: CD-1, CD-2, CD-3, CD-4, CD-5 RTOs: CD-5, CD-6 Fabric Filter: CD-9	PM, PM_{10}, $PM_{2.5}$, Odor	Scrubbers collect room air only with >99% capture, average 90% control RTOs – 100% capture efficiency, >97% removal efficiency Inherent fabric filters – on cooler and milling plant – >99% capture, >99% control All controls are voluntary	S-1 thru S-7
ES-3 / 01	☒ Add ☐ Remove ☐ Modify ☐ Other	**Line C** consisting of raw material silo, crusher, double feed hopper, disc cooker, rotary separator, fat press, cooler, meal curing bin, fat buffer tank, centrifuge, air condenser, press, fat finishing, finished fat tank, milling plant, [redacted] product silo, Five Scrubbers (5) and two (2) RTOs (Scrubbers and RTOs associated with all lines.)	Haarslev Industries Model 100K CFM Scrubbers – 100,000 cfm Haarslev Industries Model RTO-50 RTOs – 30,000 acfm Kice Model VR77 Fabric Filters - 6474 cfm	Scrubbers: CD-1, CD-2, CD-3, CD-4, CD-5 RTOs: CD-5, CD-6 Fabric Filter: CD-10	PM, PM_{10}, $PM_{2.5}$, Odor	Scrubbers collect room air only with >99% capture, average 90% control RTOs – 100% capture efficiency, >97% removal efficiency Inherent fabric filters – on cooler and milling plant – >99% capture, >99% control All controls are voluntary	S-1 thru S-7

ES-4 / 01	☒ Add ☐ Remove ☐ Modify ☐ Other	**Line D** consisting of raw material silo, hydrolyzer, mixing bin, raw material receiving screen, raw material receiving tank, coagulator, centrifuge, disc drier, cooler, meal curing bin, milling plant, air condenser, [redacted] product silo, Five Scrubbers (5) and two (2) RTOs (Scrubbers and RTOs associated with all lines.)	Haarslev Industries Model 100K CFM Scrubbers – 100,000 cfm Haarslev Industries Model RTO-50 RTOs – 30,000 acfm Kice Model VR77 Fabric Filters - 6474 cfm	Scrubbers: CD-1, CD-2, CD-3, CD-4, CD-5 RTOs: CD-5, CD-6 Fabric Filter: CD-11	PM, PM_{10}, $PM_{2.5}$, Odor	Scrubbers collect room air only with >99% capture, average 90% control RTOs – 100% capture , >97% removal Inherent fabric filters – on cooler and milling plant – >99% capture, >99% control All controls are voluntary	S-1 thru S-7
ES-5, 6 & 7 / 02	☒ Add ☐ Remove ☐ Modify ☐ Other	Three (3) Boilers shared by all lines	62.77 MMBtu/hr each	N/A	N/A	N/A	S-8 thru S-10
ES-8 / 03	☒ Add ☐ Remove ☐ Modify ☐ Other	Wastewater Flare	2.67 mmBtu/hr	N/A	N/A	N/A	S-11

RAW MATERIAL AND PRODUCT INFORMATION			
Equipment ID Process ID Control Device ID	**Raw Material(s)**	**Product(s)**	**Fuels Combusted**
ES-1/01	Poultry Backs & Frames	Dehydrated protein and fat	N/A
ES-2/01	Misc. Chicken Parts	Dehydrated protein and fat	N/A
ES-3/01	Secondary Protein Nutrient	Dehydrated protein	N/A
ES-4/01	Blood & Feathers	Dehydrated protein	N/A
ES-5, 6 & 7/02	Water & Air	Steam	Natural Gas
ES-8/03	Wastewater Lagoon Gas	N/A	N/A

MONITORING AND REPORTING INFORMATION					
Equipment ID Process ID Control Device ID	**Pollutant(s)/Parameter(s) Monitored**	**Monitoring Frequency**	**Reporting Frequency**	**Monitoring/Reporting Basis**	**Averaging Period(s)**
ES-1/01/CD-1 thru CD-5	PM, PM_{10}, $PM_{2.5}$, Odor / pressure drop	daily	none / maintain on site	N/A – True minor source	N/A
ES-2/01/CD-1 thru CD-5	PM, PM_{10}, $PM_{2.5}$, Odor / pressure drop	daily	none / maintain on site	N/A – True minor source	N/A
ES-3/01/CD-1 thru CD-5	PM, PM_{10}, $PM_{2.5}$, Odor / pressure drop	daily	none / maintain on site	N/A – True minor source	N/A
ES-4/01/CD-1 thru CD-5	PM, PM_{10}, $PM_{2.5}$, Odor / pressure drop	daily	none / maintain on site	N/A – True minor source	N/A
ES-1/01/CD -6, CD-7*	Odor / temperature	daily	none / maintain on site	N/A – True minor source	N/A
ES-2/01/CD -6, CD-7*	Odor / temperature	daily	none / maintain on site	N/A – True minor source	N/A
ES-3/01/CD -6, CD-7*	Odor / temperature	daily	none / maintain on site	N/A – True minor source	N/A
ES-4/01/CD -6, CD-7*	Odor / temperature	daily	none / maintain on site	N/A – True minor source	N/A
ES-1/01/CD -8	PM, PM_{10}, $PM_{2.5}$, pressure drop	daily	none / maintain on site	N/A – True minor source	N/A
ES-2/01/CD -9	PM, PM_{10}, $PM_{2.5}$, pressure drop	daily	none / maintain on site	N/A – True minor source	N/A
ES-3/01/CD -10	PM, PM_{10}, $PM_{2.5}$, pressure drop	daily	none / maintain on site	N/A – True minor source	N/A
ES-4/01/CD -11	PM, PM_{10}, $PM_{2.5}$, pressure drop	daily	none / maintain on site	N/A – True minor source	N/A
ES-5, 6 & 7/02	N/A	N/A	N/A	N/A	N/A
ES-8/03	Opacity	daily	none / maintain on site	N/A – True minor source	N/A

*Note: There are two RTOs, but only one operates at a time. One is installed as back-up.

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PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

Bureau of Air Quality
Construction Permit Application
Emissions

APPLICATION IDENTIFICATION *(Please ensure that the information list in this table is the same on all of the forms and required information submitted in this construction permit application package.)*		
Facility Name *(This should be the name used to identify the facility)* SC Pet Food Solutions, LLC	SC Air Permit Number (8-digits only) *(Leave blank if one has never been assigned)* -	Application Date March 15, 2017

ATTACHMENTS *(Check all the appropriate checkboxes if included as an attachment)*	
☒ Sample Calculations, Emission Factors Used, etc.	☐ Detailed Explanation of Assumptions, Bottlenecks, etc.
☒ Supporting Information: Manufacturer's Data, etc.	☐ Source Test Information
☐ Details on Limits Being Taken for Limited Emissions	☐ NSR Analysis

SUMMARY OF PROJECTED CHANGE IN FACILITY WIDE POTENTIAL EMISSIONS
(Calculated at maximum design capacity.)

Pollutants	Emission Rates Prior to Construction / Modification (tons/year)			Emission Rates After Construction / Modification (tons/year)		
	Uncontrolled	Controlled	Limited	Uncontrolled	Controlled	Limited
Particulate Matter (PM)				22.95	N/A	N/A
Particulate Matter <10 Microns (PM_{10})				21.47	N/A	N/A
Particulate Matter <2.5 Microns ($PM_{2.5}$)				20.45	N/A	N/A
Sulfur Dioxide (SO_2)				27.70	N/A	N/A
Nitrogen Oxides (NO_x)				52.73	N/A	N/A
Carbon Monoxide (CO)				77.52	N/A	N/A
Volatile Organic Compounds (VOC)				98.22	N/A	N/A
Lead (Pb)				4.29E-04	N/A	N/A
Highest HAP Prior to Construction (CAS #:)						
Highest HAP After Construction (CAS #: 7783-06-4)				3.79	N/A	N/A
Total HAP Emissions*				5.41	N/A	N/A

Include emissions from exempt equipment and emission increases from process changes that were exempt from construction permits.
(*All HAP emitted from the various equipment or processes must be listed in the appropriate "Potential Emission Rates at Maximum Design Capacity" Table)

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	**Emission Point ID**	**Pollutants** (Include CAS #)	**Calculation Methods / Limits Taken / Other Comments**	**Uncontrolled**		**Controlled**		**Limited**	
				lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
ES-1/01	S-1 thru S-7	PM	AP-42, Section 9.9 & RTO Mfg. Guarantee	1.47	6.43	N/A	N/A	N/A	N/A
ES-1/01	S-1 thru S-7	PM_{10}	OR DEQ – AQ EF01 & RTO Mfg. Guarantee	1.38	6.06	N/A	N/A	N/A	N/A
ES-1/01	S-1 thru S-7	$PM_{2.5}$	OR DEQ – AQ EF01 & RTO Mfg. Guarantee	1.32	5.80	N/A	N/A	N/A	N/A
ES-1/01	S-6 or S-7	NOx	Manufacturer Guarantee	1.21	5.29	N/A	N/A	N/A	N/A
ES-1/01	S-6 or S-7	CO	Manufacturer Guarantee	2.42	10.58	N/A	N/A	N/A	N/A
ES-1/01	S-6 or S-7	SO_2	Manufacturer Guarantee	1.21	5.29	N/A	N/A	N/A	N/A
ES-1/01	S-1 thru S-7	VOC	Manufacturer Guarantee	4.96	21.71	N/A	N/A	N/A	N/A
ES-2/01	S-1 thru S-7	PM	AP-42, Section 9.9 & RTO Mfg. Guarantee	2.44	10.67	N/A	N/A	N/A	N/A
ES-2/01	S-1 thru S-7	PM_{10}	OR DEQ – AQ EF01 & RTO Mfg. Guarantee	2.33	10.19	N/A	N/A	N/A	N/A
ES-2/01	S-1 thru S-7	$PM_{2.5}$	OR DEQ – AQ EF01 & RTO Mfg. Guarantee	2.25	9.86	N/A	N/A	N/A	N/A
ES-2/01	S-6 or S-7	NOx	Manufacturer Guarantee	2.23	9.75	N/A	N/A	N/A	N/A
ES-2/01	S-6 or S-7	CO	Manufacturer Guarantee	4.45	19.51	N/A	N/A	N/A	N/A
ES-2/01	S-6 or S-7	SO_2	Manufacturer Guarantee	2.23	9.75	N/A	N/A	N/A	N/A
ES-2/01	S-1 thru S-7	VOC	Manufacturer Guarantee	9.03	39.57	N/A	N/A	N/A	N/A
ES-3/01	S-1 thru S-7	PM	AP-42, Section 9.9 & RTO Mfg. Guarantee	0.81	3.57	N/A	N/A	N/A	N/A
ES-3/01	S-1 thru S-7	PM_{10}	OR DEQ – AQ EF01 & RTO Mfg. Guarantee	0.75	3.29	N/A	N/A	N/A	N/A
ES-3/01	S-1 thru S-7	$PM_{2.5}$	OR DEQ – AQ EF01 & RTO Mfg. Guarantee	0.71	3.10	N/A	N/A	N/A	N/A
ES-3/01	S-6 or S-7	NOx	Manufacturer Guarantee	1.15	5.02	N/A	N/A	N/A	N/A
ES-3/01	S-6 or S-7	CO	Manufacturer Guarantee	2.29	10.04	N/A	N/A	N/A	N/A
ES-3/01	S-6 or S-7	SO_2	Manufacturer Guarantee	1.15	5.02	N/A	N/A	N/A	N/A
ES-3/01	S-1 thru S-7	VOC	Manufacturer Guarantee	4.71	20.62	N/A	N/A	N/A	N/A
ES-4/01	S-1 thru S-7	PM	AP-42, Section 9.9 & RTO Mfg. Guarantee	0.47	2.05	N/A	N/A	N/A	N/A
ES-4/01	S-1 thru S-7	PM_{10}	OR DEQ – AQ EF01 & RTO Mfg. Guarantee	0.39	1.70	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	**Emission Point ID**	**Pollutants** (Include CAS #)	**Calculation Methods / Limits Taken / Other Comments**	**Uncontrolled**		**Controlled**		**Limited**	
				lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
ES-4/01	S-1 thru S-7	$PM_{2.5}$	OR DEQ – AQ EF01 & RTO Mfg. Guarantee	0.33	1.46	N/A	N/A	N/A	N/A
ES-4/01	S-6 or S-7	NOx	Manufacturer Guarantee	0.51	2.25	N/A	N/A	N/A	N/A
ES-4/01	S-6 or S-7	CO	Manufacturer Guarantee	1.03	4.50	N/A	N/A	N/A	N/A
ES-4/01	S-6 or S-7	SO_2	Manufacturer Guarantee	0.51	2.25	N/A	N/A	N/A	N/A
ES-4/01	S-1 thru S-7	VOC	Manufacturer Guarantee	2.18	9.54	N/A	N/A	N/A	N/A
CD-6/01	S-6	PM	AP-42, Section 1.4	0.02	0.08	N/A	N/A	N/A	N/A
CD-6/01	S-6	PM_{10}	AP-42, Section 1.4	0.02	0.08	N/A	N/A	N/A	N/A
CD-6/01	S-6	$PM_{2.5}$	AP-42, Section 1.4	0.02	0.08	N/A	N/A	N/A	N/A
CD-6/01	S-6	NOx	AP-42, Section 1.4	0.13	0.55	N/A	N/A	N/A	N/A
CD-6/01	S-6	CO	AP-42, Section 1.4	0.21	0.93	N/A	N/A	N/A	N/A
CD-6/01	S-6	SO_2	AP-42, Section 1.4	1.52E-03	0.007	N/A	N/A	N/A	N/A
CD-6/01	S-6	VOC	AP-42, Section 1.4	0.01	0.06	N/A	N/A	N/A	N/A
CD-6/01	S-6	Lead	AP-42, Section 1.4	1.27E-06	5.54E-06	N/A	N/A	N/A	N/A
CD-6/01	S-6	N_2O	40 CFR 98 Tables C-1 & C-2	5.57E-04	0.002	N/A	N/A	N/A	N/A
CD-6/01	S-6	CH_4	40 CFR 98 Tables C-1 & C-2	5.57E-03	0.02	N/A	N/A	N/A	N/A
CD-6/01	S-6	CO_2	40 CFR 98 Tables C-1 & C-2	372.25	1630.47	N/A	N/A	N/A	N/A
CD-6/01	S-6	CO_2e	40 CFR 98 Tables C-1 & C-2	372.56	1631.81	N/A	N/A	N/A	N/A
CD-6/01	S-6	Cadmium (7440-43-9)	AP-42 Table 1.4-3	2.78E-06	1.22E-05	N/A	N/A	N/A	N/A
CD-6/01	S-6	Mercury (7439-97-6)	AP-42 Table 1.4-3	6.58E-07	2.88E-06	N/A	N/A	N/A	N/A
CD-6/01	S-6	Arsenic (7440-38-2)	AP-42 Table 1.4-3	5.06E-07	2.22E-06	N/A	N/A	N/A	N/A
CD-6/01	S-6	Chromium (7440-47-3)	AP-42 Table 1.4-3	3.54E-06	1.55E-05	N/A	N/A	N/A	N/A
CD-6/01	S-6	Cobalt (7440-48-4)	AP-42 Table 1.4-3	2.13E-07	9.31E-07	N/A	N/A	N/A	N/A
CD-6/01	S-6	Manganese (7439-96-5)	AP-42 Table 1.4-3	9.61E-07	4.21E-06	N/A	N/A	N/A	N/A
CD-6/01	S-6	Nickel (7440-02-0)	AP-42 Table 1.4-3	5.31E-06	2.33E-05	N/A	N/A	N/A	N/A
CD-6/01	S-6	Benzene (71-43-2)	AP-42 Table 1.4-3	5.31E-06	2.33E-05	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	Emission Point ID	Pollutants (Include CAS #)	Calculation Methods / Limits Taken / Other Comments	Uncontrolled		Controlled		Limited	
				lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
CD-6/01	S-6	Dichlorobenzene (25321-22-6)	AP-42 Table 1.4-3	3.04E-06	1.33E-05	N/A	N/A	N/A	N/A
CD-6/01	S-6	Formaldehyde (50-00-0)	AP-42 Table 1.4-3	1.90E-04	8.31E-04	N/A	N/A	N/A	N/A
CD-6/01	S-6	Hexane (110-54-3)	AP-42 Table 1.4-3	4.55E-03	1.99E-02	N/A	N/A	N/A	N/A
CD-6/01	S-6	Naphthalene (91-20-3)	AP-42 Table 1.4-3	1.54E-06	6.76E-06	N/A	N/A	N/A	N/A
CD-6/01	S-6	Toluene (108-88-3)	AP-42 Table 1.4-3	8.60E-06	3.77E-05	N/A	N/A	N/A	N/A
CD-6/01	S-6	2-Methylnaphthalene (91-57-6)	AP-42 Table 1.4-3	6.07E-08	2.66E-07	N/A	N/A	N/A	N/A
CD-6/01	S-6	3-Methylchloranthrene (56-49-5)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	7, 12-Dimethylbenz(a) anthracene (57-97-6)	AP-42 Table 1.4-3	4.05E-08	1.77E-07	N/A	N/A	N/A	N/A
CD-6/01	S-6	Acenaphthene (83-32-9)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Acenaphthylene (203-96-8)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Anthracene (120-12-7)	AP-42 Table 1.4-3	6.07E-09	2.66E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Benz(a)anthracene (56-55-3)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Benzo(a)pyrene (50-32-8)	AP-42 Table 1.4-3	3.04E-09	1.33E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Benzo(b)fluoranthene (205-99-2)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Benzo(g,h,i)perylene (191-24-2)	AP-42 Table 1.4-3	3.04E-09	1.33E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Benzo(k)fluoranthene (207-08-9)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Chrysene (218-01-9)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	**Emission Point ID**	**Pollutants (Include CAS #)**	**Calculation Methods / Limits Taken / Other Comments**	**Uncontrolled**		**Controlled**		**Limited**	
				lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
CD-6/01	S-6	Dibenzo(a,h)anthracene (53-70-3)	AP-42 Table 1.4-3	3.04E-09	1.33E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Fluoranthene (206-44-0)	AP-42 Table 1.4-3	7.59E-09	3.32E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Fluorene (86-73-7)	AP-42 Table 1.4-3	7.08E-09	3.10E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Indeno(1,2,3-cd)pyrene (193-39-5)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Phenanathrene (85-01-8)	AP-42 Table 1.4-3	4.30E-08	1.88E-07	N/A	N/A	N/A	N/A
CD-6/01	S-6	Pyrene (129-00-0)	AP-42 Table 1.4-3	1.27E-08	5.54E-08	N/A	N/A	N/A	N/A
CD-6/01	S-6	Beryllium (7440-41-7)	AP-42 Table 1.4-3	3.04E-08	1.33E-07	N/A	N/A	N/A	N/A
CD-6/01	S-6	Selenium (7782-49-2)	AP-42 Table 1.4-3	6.07E-08	2.66E-07	N/A	N/A	N/A	N/A
CD-7/01	S-7	PM	AP-42, Section 1.4	0.02	0.08	N/A	N/A	N/A	N/A
CD-7/01	S-7	PM_{10}	AP-42, Section 1.4	0.02	0.08	N/A	N/A	N/A	N/A
CD-7/01	S-7	$PM_{2.5}$	AP-42, Section 1.4	0.02	0.08	N/A	N/A	N/A	N/A
CD-7/01	S-7	NOx	AP-42, Section 1.4	0.13	0.55	N/A	N/A	N/A	N/A
CD-7/01	S-7	CO	AP-42, Section 1.4	0.21	0.93	N/A	N/A	N/A	N/A
CD-7/01	S-7	SO_2	AP-42, Section 1.4	1.52E-03	0.007	N/A	N/A	N/A	N/A
CD-7/01	S-7	VOC	AP-42, Section 1.4	0.01	0.06	N/A	N/A	N/A	N/A
CD-7/01	S-7	Lead	AP-42, Section 1.4	1.27E-06	5.54E-06	N/A	N/A	N/A	N/A
CD-7/01	S-7	N_2O	40 CFR 98 Tables C-1 & C-2	5.57E-04	0.002	N/A	N/A	N/A	N/A
CD-7/01	S-7	CH_4	40 CFR 98 Tables C-1 & C-2	5.57E-03	0.02	N/A	N/A	N/A	N/A
CD-7/01	S-7	CO_2	40 CFR 98 Tables C-1 & C-2	372.25	1630.47	N/A	N/A	N/A	N/A
CD-7/01	S-7	CO_2e	40 CFR 98 Tables C-1 & C-2	372.56	1631.81	N/A	N/A	N/A	N/A
CD-7/01	S-7	Cadmium (7440-43-9)	AP-42 Table 1.4-3	2.78E-06	1.22E-05	N/A	N/A	N/A	N/A
CD-7/01	S-7	Mercury (7439-97-6)	AP-42 Table 1.4-3	6.58E-07	2.88E-06	N/A	N/A	N/A	N/A
CD-7/01	S-7	Arsenic (7440-38-2)	AP-42 Table 1.4-3	5.06E-07	2.22E-06	N/A	N/A	N/A	N/A
CD-7/01	S-7	Chromium (7440-47-3)	AP-42 Table 1.4-3	3.54E-06	1.55E-05	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	**Emission Point ID**	**Pollutants** (Include CAS #)	**Calculation Methods / Limits Taken / Other Comments**	**Uncontrolled**		**Controlled**		**Limited**	
				lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
CD-7/01	S-7	Cobalt (7440-48-4)	AP-42 Table 1.4-3	2.13E-07	9.31E-07	N/A	N/A	N/A	N/A
CD-7/01	S-7	Manganese (7439-96-5)	AP-42 Table 1.4-3	9.61E-07	4.21E-06	N/A	N/A	N/A	N/A
CD-7/01	S-7	Nickel (7440-02-0)	AP-42 Table 1.4-3	5.31E-06	2.33E-05	N/A	N/A	N/A	N/A
CD-7/01	S-7	Benzene (71-43-2)	AP-42 Table 1.4-3	5.31E-06	2.33E-05	N/A	N/A	N/A	N/A
CD-7/01	S-7	Dichlorobenzene (25321-22-6)	AP-42 Table 1.4-3	3.04E-06	1.33E-05	N/A	N/A	N/A	N/A
CD-7/01	S-7	Formaldehyde (50-00-0)	AP-42 Table 1.4-3	1.90E-04	8.31E-04	N/A	N/A	N/A	N/A
CD-7/01	S-7	Hexane (110-54-3)	AP-42 Table 1.4-3	4.55E-03	1.99E-02	N/A	N/A	N/A	N/A
CD-7/01	S-7	Naphthalene (91-20-3)	AP-42 Table 1.4-3	1.54E-06	6.76E-06	N/A	N/A	N/A	N/A
CD-7/01	S-7	Toluene (108-88-3)	AP-42 Table 1.4-3	8.60E-06	3.77E-05	N/A	N/A	N/A	N/A
CD-7/01	S-7	2-Methylnaphthalene (91-57-6)	AP-42 Table 1.4-3	6.07E-08	2.66E-07	N/A	N/A	N/A	N/A
CD-7/01	S-7	3-Methylchloranthrene (56-49-5)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	7, 12-Dimethylbenz(a) anthracene (57-97-6)	AP-42 Table 1.4-3	4.05E-08	1.77E-07	N/A	N/A	N/A	N/A
CD-7/01	S-7	Acenaphthene (83-32-9)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Acenaphthylene (203-96-8)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Anthracene (120-12-7)	AP-42 Table 1.4-3	6.07E-09	2.66E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Benz(a)anthracene (56-55-3)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Benzo(a)pyrene (50-32-8)	AP-42 Table 1.4-3	3.04E-09	1.33E-08	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	Emission Point ID	Pollutants (Include CAS #)	Calculation Methods / Limits Taken / Other Comments	Uncontrolled		Controlled		Limited	
				lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
CD-7/01	S-7	Benzo(b)fluoranthene (205-99-2)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Benzo(g,h,i)perylene (191-24-2)	AP-42 Table 1.4-3	3.04E-09	1.33E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Benzo(k)fluoranthene (207-08-9)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Chrysene (218-01-9)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Dibenzo(a,h)anthracene (53-70-3)	AP-42 Table 1.4-3	3.04E-09	1.33E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Fluoranthene (206-44-0)	AP-42 Table 1.4-3	7.59E-09	3.32E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Fluorene (86-73-7)	AP-42 Table 1.4-3	7.08E-09	3.10E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Indeno(1,2,3-cd)pyrene (193-39-5)	AP-42 Table 1.4-3	4.55E-09	1.99E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Phenanathrene (85-01-8)	AP-42 Table 1.4-3	4.30E-08	1.88E-07	N/A	N/A	N/A	N/A
CD-7/01	S-7	Pyrene (129-00-0)	AP-42 Table 1.4-3	1.27E-08	5.54E-08	N/A	N/A	N/A	N/A
CD-7/01	S-7	Beryllium (7440-41-7)	AP-42 Table 1.4-3	3.04E-08	1.33E-07	N/A	N/A	N/A	N/A
CD-7/01	S-7	Selenium (7782-49-2)	AP-42 Table 1.4-3	6.07E-08	2.66E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	PM	AP-42, Sections 1.4 & 1.5	0.48	2.09	N/A	N/A	N/A	N/A
ES-5/02	S-8	PM_{10}	AP-42, Sections 1.4 & 1.5	0.48	2.09	N/A	N/A	N/A	N/A
ES-5/02	S-8	$PM_{2.5}$	AP-42, Sections 1.4 & 1.5	0.48	2.09	N/A	N/A	N/A	N/A
ES-5/02	S-8	NOx	Manufacturer Guarantee	2.20	9.62	N/A	N/A	N/A	N/A
ES-5/02	S-8	CO	Manufacturer Guarantee	2.32	10.17	N/A	N/A	N/A	N/A
ES-5/02	S-8	SO_2	Manufacturer Guarantee	0.06	0.27	N/A	N/A	N/A	N/A
ES-5/02	S-8	VOC	Manufacturer Guarantee	0.50	2.20	N/A	N/A	N/A	N/A
ES-5/02	S-8	Lead	AP-42, Sections 1.4 & 1.5	3.14E-05	1.37E-04	N/A	N/A	N/A	N/A
ES-5/02	S-8	N_2O	40 CFR 98 Tables C-1 & C-2	1.38E-02	0.06	N/A	N/A	N/A	N/A
ES-5/02	S-8	CH_4	40 CFR 98 Tables C-1 & C-2	1.38E-01	0.60	N/A	N/A	N/A	N/A
ES-5/02	S-8	CO_2	40 CFR 98 Tables C-1 & C-2	9,235.73	40,452.48	N/A	N/A	N/A	N/A
ES-5/02	S-8	CO_2e	40 CFR 98 Tables C-1 & C-2	9,243.29	40,633.98	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	Emission Point ID	Pollutants (Include CAS #)	Calculation Methods / Limits Taken / Other Comments	Uncontrolled		Controlled		Limited	
				lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-5/02	S-8	Cadmium (7440-43-9)	AP-42, Section 1.4	6.90E-05	3.02E-04	N/A	N/A	N/A	N/A
ES-5/02	S-8	Mercury (7439-97-6)	AP-42, Section 1.4	1.63E-05	7.15E-05	N/A	N/A	N/A	N/A
ES-5/02	S-8	Arsenic (7440-38-2)	AP-42, Section 1.4	1.26E-05	5.50E-05	N/A	N/A	N/A	N/A
ES-5/02	S-8	Chromium (7440-47-3)	AP-42, Section 1.4	8.79E-05	3.85E-04	N/A	N/A	N/A	N/A
ES-5/02	S-8	Cobalt (7440-48-4)	AP-42, Section 1.4	5.27E-06	2.31E-05	N/A	N/A	N/A	N/A
ES-5/02	S-8	Manganese (7439-96-5)	AP-42, Section 1.4	2.39E-05	1.04E-04	N/A	N/A	N/A	N/A
ES-5/02	S-8	Nickel (7440-02-0)	AP-42, Section 1.4	1.32E-04	5.77E-04	N/A	N/A	N/A	N/A
ES-5/02	S-8	Benzene (71-43-2)	AP-42, Section 1.4	1.32E-04	5.77E-04	N/A	N/A	N/A	N/A
ES-5/02	S-8	Dichlorobenzene (25321-22-6)	AP-42, Section 1.4	7.53E-05	3.30E-04	N/A	N/A	N/A	N/A
ES-5/02	S-8	Formaldehyde (50-00-0)	AP-42, Section 1.4	4.71E-03	2.06E-02	N/A	N/A	N/A	N/A
ES-5/02	S-8	Hexane (110-54-3)	AP-42, Section 1.4	1.13E-01	4.95E-01	N/A	N/A	N/A	N/A
ES-5/02	S-8	Naphthalene (91-20-3)	AP-42, Section 1.4	3.83E-05	1.68E-04	N/A	N/A	N/A	N/A
ES-5/02	S-8	Toluene (108-88-3)	AP-42, Section 1.4	2.13E-04	9.35E-04	N/A	N/A	N/A	N/A
ES-5/02	S-8	2-Methylnaphthalene (91-57-6)	AP-42, Section 1.4	1.51E-06	6.60E-06	N/A	N/A	N/A	N/A
ES-5/02	S-8	3-Methylchloranthrene (56-49-5)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	7, 12-Dimethylbenz(a) anthracene (57-97-6)	AP-42, Section 1.4	1.00E-06	4.40E-06	N/A	N/A	N/A	N/A
ES-5/02	S-8	Acenaphthene (83-32-9)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	Emission Point ID	Pollutants (Include CAS #)	Calculation Methods / Limits Taken / Other Comments	Uncontrolled		Controlled		Limited	
				lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-5/02	S-8	Acenaphthylene (203-96-8)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Anthracene (120-12-7)	AP-42, Section 1.4	1.51E-07	6.60E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Benz(a)anthracene (56-55-3)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Benzo(a)pyrene (50-32-8)	AP-42, Section 1.4	7.53E-08	3.30E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Benzo(b)fluoranthene (205-99-2)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Benzo(g,h,i)perylene (191-24-2)	AP-42, Section 1.4	7.53E-08	3.30E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Benzo(k)fluoranthene (207-08-9)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Chrysene (218-01-9)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Dibenzo(a,h)anthracene (53-70-3)	AP-42, Section 1.4	7.53E-08	3.30E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Fluoranthene (206-44-0)	AP-42, Section 1.4	1.88E-07	8.25E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Fluorene (86-73-7)	AP-42, Section 1.4	1.76E-07	7.70E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Indeno(1,2,3-cd)pyrene (193-39-5)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-5/02	S-8	Phenanathrene (85-01-8)	AP-42, Section 1.4	1.07E-06	4.67E-06	N/A	N/A	N/A	N/A
ES-5/02	S-8	Pyrene (129-00-0)	AP-42, Section 1.4	3.14E-07	1.37E-06	N/A	N/A	N/A	N/A
ES-5/02	S-8	Beryllium (7440-41-7)	AP-42, Section 1.4	7.53E-07	3.30E-06	N/A	N/A	N/A	N/A
ES-5/02	S-8	Selenium (7782-49-2)	AP-42, Section 1.4	1.51E-06	6.60E-06	N/A	N/A	N/A	N/A
ES-6/02	S-9	PM	AP-42, Sections 1.4 & 1.5	0.48	2.09	N/A	N/A	N/A	N/A
ES-6/02	S-9	PM_{10}	AP-42, Sections 1.4 & 1.5	0.48	2.09	N/A	N/A	N/A	N/A
ES-6/02	S-9	$PM_{2.5}$	AP-42, Sections 1.4 & 1.5	0.48	2.09	N/A	N/A	N/A	N/A
ES-6/02	S-9	NOx	Manufacturer Guarantee	2.20	9.62	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	**Emission Point ID**	**Pollutants (Include CAS #)**	**Calculation Methods / Limits Taken / Other Comments**	**Uncontrolled**		**Controlled**		**Limited**	
				lbs/hr	**tons/yr**	**lbs/hr**	**tons/yr**	**lbs/hr**	**tons/yr**
ES-6/02	S-9	CO	Manufacturer Guarantee	2.32	10.17	N/A	N/A	N/A	N/A
ES-6/02	S-9	SO_2	Manufacturer Guarantee	0.06	0.27	N/A	N/A	N/A	N/A
ES-6/02	S-9	VOC	Manufacturer Guarantee	0.50	2.20	N/A	N/A	N/A	N/A
ES-5/02	S-8	Lead	AP-42, Sections 1.4 & 1.5	3.14E-05	1.37E-04	N/A	N/A	N/A	N/A
ES-6/02	S-9	N_2O	40 CFR 98 Tables C-1 & C-2	1.38E-02	0.06	N/A	N/A	N/A	N/A
ES-6/02	S-9	CH_4	40 CFR 98 Tables C-1 & C-2	1.38E-01	0.60	N/A	N/A	N/A	N/A
ES-6/02	S-9	CO_2	40 CFR 98 Tables C-1 & C-2	9,235.73	40,452.48	N/A	N/A	N/A	N/A
ES-6/02	S-9	CO_2e	40 CFR 98 Tables C-1 & C-2	9,243.29	40,633.98	N/A	N/A	N/A	N/A
ES-6/02	S-9	Cadmium (7440-43-9)	AP-42, Section 1.4	6.90E-05	3.02E-04	N/A	N/A	N/A	N/A
ES-6/02	S-9	Mercury (7439-97-6)	AP-42, Section 1.4	1.63E-05	7.15E-05	N/A	N/A	N/A	N/A
ES-6/02	S-9	Arsenic (7440-38-2)	AP-42, Section 1.4	1.26E-05	5.50E-05	N/A	N/A	N/A	N/A
ES-6/02	S-9	Chromium (7440-47-3)	AP-42, Section 1.4	8.79E-05	3.85E-04	N/A	N/A	N/A	N/A
ES-6/02	S-9	Cobalt (7440-48-4)	AP-42, Section 1.4	5.27E-06	2.31E-05	N/A	N/A	N/A	N/A
ES-6/02	S-9	Manganese (7439-96-5)	AP-42, Section 1.4	2.39E-05	1.04E-04	N/A	N/A	N/A	N/A
ES-6/02	S-9	Nickel (7440-02-0)	AP-42, Section 1.4	1.32E-04	5.77E-04	N/A	N/A	N/A	N/A
ES-6/02	S-9	Benzene (71-43-2)	AP-42, Section 1.4	1.32E-04	5.77E-04	N/A	N/A	N/A	N/A
ES-6/02	S-9	Dichlorobenzene (25321-22-6)	AP-42, Section 1.4	7.53E-05	3.30E-04	N/A	N/A	N/A	N/A
ES-6/02	S-9	Formaldehyde (50-00-0)	AP-42, Section 1.4	4.71E-03	2.06E-02	N/A	N/A	N/A	N/A
ES-6/02	S-9	Hexane (110-54-3)	AP-42, Section 1.4	1.13E-01	4.95E-01	N/A	N/A	N/A	N/A
ES-6/02	S-9	Naphthalene (91-20-3)	AP-42, Section 1.4	3.83E-05	1.68E-04	N/A	N/A	N/A	N/A
ES-6/02	S-9	Toluene (108-88-3)	AP-42, Section 1.4	2.13E-04	9.35E-04	N/A	N/A	N/A	N/A
ES-6/02	S-9	2-Methylnaphthalene (91-57-6)	AP-42, Section 1.4	1.51E-06	6.60E-06	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	Emission Point ID	Pollutants (Include CAS #)	Calculation Methods / Limits Taken / Other Comments	Uncontrolled		Controlled		Limited	
				lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-6/02	S-9	3-Methylchloranthrene (56-49-5)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	7, 12-Dimethylbenz(a) anthracene (57-97-6)	AP-42, Section 1.4	1.00E-06	4.40E-06	N/A	N/A	N/A	N/A
ES-6/02	S-9	Acenaphthene (83-32-9)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Acenaphthylene (203-96-8)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Anthracene (120-12-7)	AP-42, Section 1.4	1.51E-07	6.60E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Benz(a)anthracene (56-55-3)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Benzo(a)pyrene (50-32-8)	AP-42, Section 1.4	7.53E-08	3.30E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Benzo(b)fluoranthene (205-99-2)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Benzo(g,h,i)perylene (191-24-2)	AP-42, Section 1.4	7.53E-08	3.30E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Benzo(k)fluoranthene (207-08-9)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Chrysene (218-01-9)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Dibenzo(a,h)anthracene (53-70-3)	AP-42, Section 1.4	7.53E-08	3.30E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Fluoranthene (206-44-0)	AP-42, Section 1.4	1.88E-07	8.25E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Fluorene (86-73-7)	AP-42, Section 1.4	1.76E-07	7.70E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Indeno(1,2,3-cd)pyrene (193-39-5)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-6/02	S-9	Phenanathrene (85-01-8)	AP-42, Section 1.4	1.07E-06	4.67E-06	N/A	N/A	N/A	N/A
ES-6/02	S-9	Pyrene (129-00-0)	AP-42, Section 1.4	3.14E-07	1.37E-06	N/A	N/A	N/A	N/A
ES-6/02	S-9	Beryllium (7440-41-7)	AP-42, Section 1.4	7.53E-07	3.30E-06	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	Emission Point ID	Pollutants (Include CAS #)	Calculation Methods / Limits Taken / Other Comments	Uncontrolled		Controlled		Limited	
				lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-6/02	S-9	Selenium (7782-49-2)	AP-42, Section 1.4	1.51E-06	6.60E-06	N/A	N/A	N/A	N/A
ES-7/02	S-10	PM	AP-42, Sections 1.4 & 1.5	0.48	2.09	N/A	N/A	N/A	N/A
ES-7/02	S-10	PM_{10}	AP-42, Sections 1.4 & 1.5	0.48	2.09	N/A	N/A	N/A	N/A
ES-7/02	S-10	$PM_{2.5}$	AP-42, Sections 1.4 & 1.5	0.48	2.09	N/A	N/A	N/A	N/A
ES-7/02	S-10	NOx	Manufacturer Guarantee	2.20	9.62	N/A	N/A	N/A	N/A
ES-7/02	S-10	CO	Manufacturer Guarantee	2.32	10.17	N/A	N/A	N/A	N/A
ES-7/02	S-10	SO_2	Manufacturer Guarantee	0.06	0.27	N/A	N/A	N/A	N/A
ES-7/02	S-10	VOC	Manufacturer Guarantee	0.50	2.20	N/A	N/A	N/A	N/A
ES-7/02	S-10	Lead	AP-42, Sections 1.4 & 1.5	3.14E-05	1.37E-04	N/A	N/A	N/A	N/A
ES-7/02	S-10	N_2O	40 CFR 98 Tables C-1 & C-2	1.38E-02	0.06	N/A	N/A	N/A	N/A
ES-7/02	S-10	CH_4	40 CFR 98 Tables C-1 & C-2	1.38E-01	0.60	N/A	N/A	N/A	N/A
ES-7/02	S-10	CO_2	40 CFR 98 Tables C-1 & C-2	9,235.73	40,452.48	N/A	N/A	N/A	N/A
ES-7/02	S-10	CO_2e	40 CFR 98 Tables C-1 & C-2	9,243.29	40,633.98	N/A	N/A	N/A	N/A
ES-7/02	S-10	Cadmium (7440-43-9)	AP-42, Section 1.4	6.90E-05	3.02E-04	N/A	N/A	N/A	N/A
ES-7/02	S-10	Mercury (7439-97-6)	AP-42, Section 1.4	1.63E-05	7.15E-05	N/A	N/A	N/A	N/A
ES-7/02	S-10	Arsenic (7440-38-2)	AP-42, Section 1.4	1.26E-05	5.50E-05	N/A	N/A	N/A	N/A
ES-7/02	S-10	Chromium (7440-47-3)	AP-42, Section 1.4	8.79E-05	3.85E-04	N/A	N/A	N/A	N/A
ES-7/02	S-10	Cobalt (7440-48-4)	AP-42, Section 1.4	5.27E-06	2.31E-05	N/A	N/A	N/A	N/A
ES-7/02	S-10	Manganese (7439-96-5)	AP-42, Section 1.4	2.39E-05	1.04E-04	N/A	N/A	N/A	N/A
ES-7/02	S-10	Nickel (7440-02-0)	AP-42, Section 1.4	1.32E-04	5.77E-04	N/A	N/A	N/A	N/A
ES-7/02	S-10	Benzene (71-43-2)	AP-42, Section 1.4	1.32E-04	5.77E-04	N/A	N/A	N/A	N/A
ES-7/02	S-10	Dichlorobenzene (25321-22-6)	AP-42, Section 1.4	7.53E-05	3.30E-04	N/A	N/A	N/A	N/A
ES-7/02	S-10	Formaldehyde (50-00-0)	AP-42, Section 1.4	4.71E-03	2.06E-02	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	Emission Point ID	Pollutants (Include CAS #)	Calculation Methods / Limits Taken / Other Comments	Uncontrolled		Controlled		Limited	
				lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-7/02	S-10	Hexane (110-54-3)	AP-42, Section 1.4	1.13E-01	4.95E-01	N/A	N/A	N/A	N/A
ES-7/02	S-10	Naphthalene (91-20-3)	AP-42, Section 1.4	3.83E-05	1.68E-04	N/A	N/A	N/A	N/A
ES-7/02	S-10	Toluene (108-88-3)	AP-42, Section 1.4	2.13E-04	9.35E-04	N/A	N/A	N/A	N/A
ES-7/02	S-10	2-Methylnaphthalene (91-57-6)	AP-42, Section 1.4	1.51E-06	6.60E-06	N/A	N/A	N/A	N/A
ES-7/02	S-10	3-Methylchloranthrene (56-49-5)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	7, 12-Dimethylbenz(a) anthracene (57-97-6)	AP-42, Section 1.4	1.00E-06	4.40E-06	N/A	N/A	N/A	N/A
ES-7/02	S-10	Acenaphthene (83-32-9)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Acenaphthylene (203-96-8)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Anthracene (120-12-7)	AP-42, Section 1.4	1.51E-07	6.60E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Benz(a)anthracene (56-55-3)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Benzo(a)pyrene (50-32-8)	AP-42, Section 1.4	7.53E-08	3.30E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Benzo(b)fluoranthene (205-99-2)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Benzo(g,h,i)perylene (191-24-2)	AP-42, Section 1.4	7.53E-08	3.30E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Benzo(k)fluoranthene (207-08-9)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Chrysene (218-01-9)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Dibenzo(a,h)anthracene (53-70-3)	AP-42, Section 1.4	7.53E-08	3.30E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Fluoranthene (206-44-0)	AP-42, Section 1.4	1.88E-07	8.25E-07	N/A	N/A	N/A	N/A

POTENTIAL EMISSION RATES AT MAXIMUM DESIGN CAPACITY									
Equipment ID / Process ID	Emission Point ID	Pollutants (Include CAS #)	Calculation Methods / Limits Taken / Other Comments	Uncontrolled		Controlled		Limited	
				lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
ES-7/02	S-10	Fluorene (86-73-7)	AP-42, Section 1.4	1.76E-07	7.70E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Indeno(1,2,3-cd)pyrene (193-39-5)	AP-42, Section 1.4	1.13E-07	4.95E-07	N/A	N/A	N/A	N/A
ES-7/02	S-10	Phenanathrene (85-01-8)	AP-42, Section 1.4	1.07E-06	4.67E-06	N/A	N/A	N/A	N/A
ES-7/02	S-10	Pyrene (129-00-0)	AP-42, Section 1.4	3.14E-07	1.37E-06	N/A	N/A	N/A	N/A
ES-7/02	S-10	Beryllium (7440-41-7)	AP-42, Section 1.4	7.53E-07	3.30E-06	N/A	N/A	N/A	N/A
ES-7/02	S-10	Selenium (7782-49-2)	AP-42, Section 1.4	1.51E-06	6.60E-06	N/A	N/A	N/A	N/A
ES-8 /03	S-11	PM	AP-42 Table 2.4-4	0.04	0.17	N/A	N/A	N/A	N/A
ES-8 /03	S-11	PM_{10}	AP-42 Table 2.4-4	0.04	0.17	N/A	N/A	N/A	N/A
ES-8 /03	S-11	$PM_{2.5}$	AP-42 Table 2.4-4	0.04	0.17	N/A	N/A	N/A	N/A
ES-8 /03	S-11	NOx	AP-42 Table 2.4-4	0.10	0.44	N/A	N/A	N/A	N/A
ES-8 /03	S-11	CO	AP-42 Table 2.4-4	0.12	0.52	N/A	N/A	N/A	N/A
ES-8 /03	S-11	SO_2	Engineering Calculation	1.04	4.55	N/A	N/A	N/A	N/A
ES-8 /03	S-11	VOC	AP-42 Table 1.4-2	0.01	0.06	N/A	N/A	N/A	N/A
ES-8 /03	S-11	Lead	AP-42 Table 1.4-2	1.28E-06	5.61E-06	N/A	N/A	N/A	N/A
ES-8 /03	S-11	Hydrogen Sulfide (7783-06-4)	Engineering Calculation	0.86	3.79	N/A	N/A	N/A	N/A
ES-8 /03	S-11	CH_4	Engineering Calculation & 40 CFR 98 Tables C-1 & C-2	106.84	467.94	N/A	N/A	N/A	N/A
ES-8 /03	S-11	CO_2	Engineering Calculation & 40 CFR 98 Tables C-1 & C-2	307.04	1,344.84	N/A	N/A	N/A	N/A
ES-8 /03	S-11	CO_2e	40 CFR 98 Tables C-1 & C-2	2,778.53	12,169.94	N/A	N/A	N/A	N/A

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

Bureau of Air Quality
Construction Permit Application
Regulatory Review

APPLICATION IDENTIFICATION *(Please ensure that the information list in this table is the same on all of the forms and required information submitted in this construction permit application package.)*		
Facility Name *(This should be the name used to identify the facility)* SC Pet Food Solutions, LLC	SC Air Permit Number (8-digits only) *(Leave blank if one has never been assigned)* -	Application Date March 15, 2017

STATE AND FEDERAL AIR POLLUTION CONTROL REGULATIONS AND STANDARDS
(If not listed below add any additional regulations that are triggered.)

Regulation	Applicable		Include all limits, work practices, monitoring, record keeping, etc.		
	Yes	No	Explain Applicability Determination	List the specific limitations and/or requirements that apply.	How will compliance be demonstrated?
Regulation 61-62.1, Section II(E) Synthetic Minor Construction Permits	☐	☒	Uncontrolled PTE of criteria pollutants is <250 tons/yr	N/A	N/A
Regulation 61-62.1, Section II(G) Conditional Major Operating Permits	☐	☒	Facility is minor source	N/A	N/A
Regulation 61-62.5, Standard No. 1 Emissions from Fuel Burning Operations	☒	☐	Boilers meet the definition of fuel burning equipment	N/A	N/A
Regulation 61-62.5, Standard No. 2 Ambient Air Quality Standards	☒	☐	Applicable to all facilities	Ambient Air Quality Standards	Air dispersion modeling.
Regulation 61-62.5, Standard No. 3 Waste Combustion and Reduction	☒	☐	Waste gas is burned in RTO and flare	Section III I. 20% opacity and PM 0.5 lbs/10^6 Btu heat input	Visual observation
Regulation 61-62.5, Standard No. 4 Emissions from Process Industries	☒	☐	PM emissions not specified elsewhere	Section VIII and Section IX 20% Opacity	PM emissions below modeling threshold.
Regulation 61-62.5, Standard No. 5 Volatile Organic Compounds	☐	☒	VOCs <100 tons/yr	N/A	N/A
Regulation 61-62.5, Standard No. 5.2 Control of Oxides of Nitrogen	☒	☐	No BACT analysis performed on boilers	< 0.036 lbs/mmBtu/hr	Manufacturer guarantee
Regulation 61-62.5, Standard No. 7 Prevention of Significant Deterioration*	☐	☒	Emissions are < 250 tons/yr	N/A	N/A
Regulation 61-62.5, Standard No. 7.1 Nonattainment New Source Review*	☐	☒	Located in attainment area	N/A	N/A
Regulation 61-62.5, Standard No. 8 Toxic Air Pollutants	☐	☒	Air toxics are emitted from combustion of virgin fuels and anaerobic lagoons	N/A	Air dispersion modeling
Regulation 61-62.6 Control of Fugitive Particulate Matter	☒	☐	Applicable to all facilities	Minimize to maximum extent practicable	N/A

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South Carolina Department of Health and Environmental Control

Bureau of Air Quality
Construction Permit Application
Regulatory Review

STATE AND FEDERAL AIR POLLUTION CONTROL REGULATIONS AND STANDARDS *(If not listed below add any additional regulations that are triggered.)*					
Regulation	**Applicable**		**Include all limits, work practices, monitoring, record keeping, etc.**		
	Yes	**No**	**Explain Applicability Determination**	**List the specific limitations and/or requirements that apply.**	**How will compliance be demonstrated?**
Regulation 61-62.68 Chemical Accident Prevention Provisions	☐	☒	No regulated chemicals above threshold associated with this project	N/A	N/A
Regulation 61-62.70 Title V Operating Permit Program	☐	☒	Facility is not a Title V Facility	N/A	N/A
40 CFR Part 64 - Compliance Assurance Monitoring (CAM)	☐	☒	No emission sources that are major sources with control devices	N/A	N/A
40 CFR 60 Subpart A - General Provisions	☒	☐	Subject to Subpart Dc	N/A	N/A
Subpart Dc	☒	☐	Three new 63.00 mmBtu/hr boilers	N/A	N/A
	☐	☐			
	☐	☐			
	☐	☐			
40 CFR 61 Subpart A - General Provisions	☐	☒	Not subject to any Part 61 Standards	N/A	N/A
	☐	☐			
Subpart A - General Provisions	☐	☒	Not subject to any Part 63 Standard	N/A	N/A
Subpart S	☐	☒	Facility is not a major source	N/A	N/A
Subpart JJJJJJ	☐	☒	Gas-fired boilers	N/A	N/A
	☐	☐			
	☐	☐			
	☐	☐			

* Green House Gas emissions must be quantified if these regulations are triggered.

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Emission Point Information
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A. APPLICATION IDENTIFICATION	
1. Facility Name: SC Pet Food Solutions, LLC	
2. SC Air Permit Number (if known; 8-digits only): -	3. Application Date: March 15, 2017
4. Project Description: Manufacture of dehydrated protein products	

B. FACILITY INFORMATION	
1. Is your company a Small Business? ☐ Yes ☒ No	2. If a Small Business or small government facility, is Bureau assistance being requested? ☐ Yes ☐ No
3. Are other facilities collocated for air compliance? ☐ Yes ☒ No	4. If Yes, provide permit numbers of collocated facilities:

C. AIR CONTACT			
Consulting Firm Name (if applicable): AECOM			
Title/Position: Senior Scientist	Salutation: Mr.	First Name: Mark	Last Name: Yoder
Mailing Address: 1600 Perimeter Park Drive			
City: Morrisville		State: NC	Zip Code: 27560
E-mail Address: mark.yoder@aecom.com		Phone No.: 919-461-1441	Cell No.:

D. EMISSION POINT DISPERSION PARAMETERS

Source data requirements are based on the appropriate source classification. Each emission point is classified as a point, area, volume, or flare source. Contact the Bureau of Air Quality for clarification of data requirements. Include sources on a scaled site map. Also, a picture of area or volume sources would be helpful but is not required. A user generated document or spreadsheet may be substituted in lieu of this form provided all of the required emission point parameters are submitted in the same order, units, etc. as presented in these tables.

Abbreviations / Units of Measure: UTM = Universal Transverse Mercator; °N = Degrees North; °W = Degrees West; m = meters; AGL = Above Ground Level; ft = feet; ft/s = feet per second; ° = Degrees; °F = Degrees Fahrenheit

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Emission Point Information

E. POINT SOURCE DATA

(Point sources such as stacks, chimneys, exhaust fans, and vents.)

Emission Point ID	Description/Name	Point Source Coordinates Projection: NAD 83 Zone 17				Release Height AGL (ft)	Temp. (°F)	Exit Velocity (ft/s)	Inside Diameter (ft)	Discharge Orientation	Rain Cap? (Y/N)	Distance To Nearest Property Boundary (ft)	Building		
		UTM E (m)	UTM N (m)	Lat (°N)	Long (°W)								Height (ft)	Length (ft)	Width (ft)
S-6	RTO #1	430811	3754067			52	311	35.25	4.25	V	N	See BPIP Files	See BPIP Files	See BPIP Files	See BPIP Files
S-7	RTO #2	430805	3754071			52	311	35.25	4.25	V	N	See BPIP Files	See BPIP Files	See BPIP Files	See BPIP Files
S-8	Boiler	430824	3754126			28	373	55.29	3.0	V	N	See BPIP Files	See BPIP Files	See BPIP Files	See BPIP Files
S-9	Boiler	430819.7	3754129			28	373	55.29	3.0	V	N	See BPIP Files	See BPIP Files	See BPIP Files	See BPIP Files
S-10	Boiler	430816	3754131			28	373	55.29	3.0	V	N	See BPIP Files	See BPIP Files	See BPIP Files	See BPIP Files
S-11	Wastewater Flare	430707	3754195			20	Ambient	50.93	0.25	V	N	See BPIP Files	See BPIP Files	See BPIP Files	See BPIP Files

F. AREA SOURCE DATA

(Area sources such as storage piles, and other sources that have low level or ground level releases with no plumes.)

Emission Point ID	Description/Name	Area Source Coordinates Projection:				Release Height AGL (ft)	Easterly Length (ft)	Northerly Length (ft)	Angle From North (°)	Distance To Nearest Property Boundary (ft)
		UTM E (m)	UTM N (m)	Lat (°N)	Long (°W)					

G. VOLUME SOURCE DATA

(Volume sources such as building fugitives that have initial dispersion vertical depth prior to release.)

Emission Point ID	Description/Name	Volume Source Coordinates Projection:				Release Height AGL (ft)	Initial Horizontal Dimension (ft)	Initial Vertical Dimension (ft)	Distance To Nearest Property Boundary (ft)
		UTM E (m)	UTM N (m)	Lat (°N)	Long (°W)				

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H. FLARE SOURCE DATA

(Point sources where the combustion takes place at the tip of the stack.)

Emission Point ID	Description/Name	Flare Source Coordinates Projection:				Release Height AGL (ft)	Heat Release Rate (BTU/hr)	Distance To Nearest Property Boundary (ft)	Building		
		UTM E (m)	UTM N (m)	Lat (°N)	Long (°W)				Height (ft)	Length (ft)	Width (ft)

I. AREA CIRCULAR SOURCE DATA

Emission Point ID	Description/Name	Area Circular Source Coordinates Projection:				Release Height AGL (ft)	Radius of Area (ft)	Distance To Nearest Property Boundary (ft)
		UTM E (m)	UTM N (m)	Lat (°N)	Long (°W)			

J. AREA POLY SOURCE DATA

Emission Point ID	Description/Name	Area Poly Source Coordinates Projection:		Release Height AGL (ft)	Number of Vertices
		UTM E (m)	UTM N (m)		

K. OPEN PIT SOURCE DATA

Emission Point ID	Description/Name	Open Pit Source Coordinates Projection:		Release Height AGL (ft)	Easterly Length (ft)	Northerly Length (ft)	Volume (ft^3)	Angle From North (°)
		UTM E (m)	UTM N (m)					

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L. EMISSION RATES						
Emission Point ID	**Pollutant Name**	**CAS #**	**Emission Rate (lb/hr)**	**Same as Permitted (1)**	**Controlled or Uncontrolled**	**Averaging Period**
S-6	PM_{10}		3.08	☒ Yes ☐ No	Uncontrolled	24 hour
	$PM_{2.5}$		3.08	☒ Yes ☐ No	Uncontrolled	24 hour & Annual
	NOx		5.22	☒ Yes ☐ No	Uncontrolled	1 hour & Annual
	SO_2		5.10	☒ Yes ☐ No	Uncontrolled	1 hour & 3 hour
S-7	PM_{10}		3.08	☒ Yes ☐ No	Uncontrolled	24 hour
	$PM_{2.5}$		3.08	☒ Yes ☐ No	Uncontrolled	24 hour & Annual
	NOx		5.22	☒ Yes ☐ No	Uncontrolled	1 hour & Annual
	SO_2		5.10	☒ Yes ☐ No	Uncontrolled	1 hour & 3 hour
S-8	NOx		2.20	☒ Yes ☐ No	Uncontrolled	1 hr & Annual
S-9	NOx		2.20	☒ Yes ☐ No	Uncontrolled	1 hr & Annual
S-10	NOx		2.20	☒ Yes ☐ No	Uncontrolled	1 hr & Annual
S-11	H_2S		0.86	☒ Yes ☐ No	Uncontrolled	24 hour
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		
				☐ Yes ☐ No		

(1) Any difference between the rates used for permitting and the air compliance demonstration must be explained in the application report.

Section 2

PROJECT DESCRIPTION

SC PET FOOD SOLUTIONS, LLC

WARD, SOUTH CAROLINA

PROJECT DESCRIPTION

SC Pet Food Solutions, LLC (SCP) is planning to construct a pet food ingredient facility dedicated to the recovery of resources available in the co-products generated from processing live poultry into meat food products. Co-products consist of; backs, frames, necks, skin, viscera, bones, blood, and feathers. The facility will be located at 1299 Duncan Rd., Ward, South Carolina 29166 and will consist of four processing lines.

The purpose of this application is to request an air quality permit to construct a new manufacturing facility.

I. Project Description

The New Poultry Protein Conversion Plant will be a pet food ingredient facility dedicated to the recovery of resources available in the co-products generated from processing live poultry into meat food products. Co-products consist of; backs, frames, necks, skin, viscera, bones, blood, and feathers. The new poultry protein conversion plant will produce

- Poultry meal [redacted]
- [redacted] grade fat
- Hydrolyzed feather meal with blood protein

The facility will include raw materials receiving equipment suitable for segregating and storing the materials for four to six hours prior to processing and the "Offal/Meat" process which will be a combination of different lines as follows:

- Line A - [redacted] Poultry [redacted] Processing Line
- Line B - Poultry By-Product High Efficiency Processing Line
- Line C - Poultry By-Product Conventional Processing Line
- Line D - Feather/Blood Processing Line

A. Raw Materials Receiving

Co-products are collected at the live poultry processing facilities. They are loaded in trailers and trucked to the new poultry protein conversion plant (PPCP).

The truck trailers have hydraulic systems for unloading the raw material into Receiving Bins at the PPCP. The trailers are designed to keep the various types of co-products segregated. They have tanks for hauling blood and divider gates to separate offal from feathers. Keeping the raw materials separated during collection, transport, receiving and processing is necessary to comply with the commercial definitions of the finished products. The PPCP raw material receiving bins and tanks are constructed of stainless steel and are enclosed vessels. Each of the bins has hydraulic powered inlet covers. After receiving from the truck is finished the lid is closed. The blood tank is filled by pumps connected to the delivery tank truck. Each bin and tank has a vent connected to a duct system. The duct system directs the vented air and any possible inherent odor from the raw materials to the plant's odor abatement systems. An economic justification is included in the emission calculations.

B. Line A - [redacted] Poultry [redacted] Processing Line

Raw material is discharged from the receiving bin and transported via enclosed screw conveyors. The screw conveyor system deposits the raw material onto the primary metal detection system, a belt conveyor which carries the raw material through a metal detector aperture.

The raw material passing both metal detection systems is transported via enclosed screw conveyors to a pre-crusher system for reducing of the particle size before entering into a holding bin with live bottom screws. From the holding bin the raw material is pumped by a special rotary vane pump into a screw feed orifice grinder/mincer. The screw feeder will push the pre-crushed product through a perforated plate; the sizes of the holes in the perforated plate control the maximum output particle size. The minced product drops into a holding bin with a live

bottom screw, from the holding bin the product is pumped by a special rotary vane pump into the continuous disc pre-heater.

The continuous disc pre-heater consists of an outer shell, or stator, and a rotor assembly made up of a series of hollow discs mounted on a central shaft. The rotor discs are heated internally with boiler steam. The heat is transferred to the product as it comes in contact with the hot surfaces of the discs. Since the heat is transferred to the product indirectly through the discs, the condensed steam is withdrawn from the rotor and returned to the boilers for reuse as feed water. The pre-heated poultry product is discharged from the pre-heater by pumps, controlled by frequency converters. The pumps feed the [redacted] centrifuges for the separation of solids, fat and stickwater. The protein solids are discharged from the [redacted] centrifuges and transported to the [redacted] drier by enclosed screw conveyors. The fat is discharged from the [redacted] centrifuges into a pump and is pumped to a fat polisher holding tank. The stickwater is discharged from the [redacted] centrifuges into a pump, where it is pumped to an evaporator stickwater holding tank. From the evaporator stickwater holding tank, the stickwater is pumped to an evaporator system for removal of and concentration of solids. After achieving the desired concentration of fat/solids the liquid is led to the infeed screw conveyor and mixed with the [redacted] solids before entering the [redacted] disc drier where the remaining water is removed as hot process vapor.

The [redacted] Disc Drier consists of an outer shell, or stator reinforced for [redacted], and a rotor assembly made up of a series of hollow discs mounted on a central shaft. The poultry meal dries when it comes into contact with the hot surfaces of the discs. Since the heat is transferred to the poultry meal indirectly through the discs, the condensed steam is withdrawn from the rotor and returned to the boilers for reuse as feed water. Moisture driven from the meal during drying is exhausted from the top of the disc drier as hot process vapor. The process vapor is ducted to the [redacted] condenser where it is condensed back into water. The dried poultry meal discharged from the [redacted] disc drier is transported by screw conveyors to a meal cooler.

The meal cooler consists of an outer shell/stator, and a rotor assembly made up of a center pipe with a series of lifting/transport arms. The meal is kept in motion as and travels the length of the meal cooler towards the discharge chute. The meal cooler has a fan for pulling room air counter flow to the meal travel for cooling. Poultry meal is recovered by a bag-filter prior to discharge into the packed bed scrubber.

The poultry meal is delivered from the drying/cooling process to a curing bin located in the milling room. Poultry meal is discharged from the curing bin and transported through the milling process with screw conveyors. The meal is first passed over a vibrating screen. Particles that do not pass through the screen are collected and routed to a hammer mill grinder to reduce their size. After grinding, the meal is returned to the vibrating screen. Poultry meal that passes through the screen mesh has met the size classification requirement and is now the finished product.

The raw material bin, crusher, orifice grinder, pre-heater, [redacted], fat polishing, and condenser exhausts through a totally enclosed piping system to the regenerative thermal oxidizer (RTO) for destruction of pollutants (primarily odor) prior to release to atmosphere.

C. Line B - Poultry By-Product High Efficiency Processing Line

Raw material is discharged from the two (2) receiving bins and transported via enclosed screw conveyors. The screw conveyor system deposits the raw material onto the primary metal detection system, a belt conveyor which carries the raw material through a metal detector aperture. After passing metal detection systems the raw material moves on to the cooking process.

The PPCP cooking process includes a three-stage slurry evaporator at the heart of the system. The evaporator system is comprised of three tubular heat exchangers mounted vertically above an integral vapor chamber that also acts as a liquid sump. Each heat exchanger/vapor chamber assembly comprises a "stage". The evaporator

is operated with the internal pressure in a vacuum whereby, water is removed and the protein products are cooked at lower temperatures, about 275°F.

The concentrated slurry is pumped to the decanter centrifuges for the separation of fat and solids, by a recirculation pipe system. The dried protein solids in the concentrated slurry are removed using decanter centrifuges, where the heavier solids are separated from the concentrated slurry by centrifugal force, the slurry solids discharged from the decanter centrifuges and transported to the screw presses by enclosed screw conveyors.

Part of the fat from the decanter centrifuges and the screw presses is transported to fat storage tanks, and some of the fat is transported back into the process (fluidizer unit). Before the fat is pumped to the fat storage tank, the fat is polished/ cleaned by a decanter centrifuge for removal of any remaining protein solids. The screw presses complete the separation of fat from the press cake. The pressed solids (press cake) are transported by enclosed screw conveyors to a meal cooler.

The poultry meal cooler consists of an outer shell/stator, and a rotor assembly made up of a center pipe with a series of lifting/transport arms. The meal is kept in motion as they travel the length of the meal cooler towards the discharge chute. The meal cooler has a fan for pulling room air counter flow to the meal travel for cooling. Poultry meal is recovered by a bag-filter prior to discharge into the packed bed scrubber.

The poultry meal is delivered from the drying/cooling process to a curing bin located in the milling room. The curing bin is similar to the raw material receiving bins as it is designed with a live-bottom conveyor system. Poultry meal is discharged from the curing bin and transported through the milling process with screw conveyors. The meal is first passed over a vibrating screen. Particles that do not pass through the screen are collected and routed to a hammer mill grinder to reduce their size. After grinding, the meal is returned to the vibrating screen. The system is designed to continue cycling over-sized particles to the curing bin and the hammer mill until they pass through the mesh of the vibrating screen. Meal that

passes through the screen mesh has met the size classification requirement and is now the finished product.

The finished product is transported into a meal classifier. The meal classifier separates fines particles from coarse particles using a fixed speed self-contained fan and rejecter blade classification system. The internal fan design uses low HP and does not require cyclones, airlocks or baghouse to collect the fines. The feed is conveyed into the air separator by gravity. The fines and coarse also exit the air classifier by gravity. The meal classifier separates the poultry meal into two grades of meals.

The raw material silos, crusher, wet grinder, centrifuge, fat tank, fat polishing, press and condenser exhausts through a totally enclosed piping system to the regenerative thermal oxidizer (RTO) for destruction of pollutants (primarily odor) prior to release to atmosphere.

D. Line C - Poultry By-Product Conventional Processing Line

Raw Material is discharged from the receiving bin and transported via enclosed screw conveyors. The screw conveyor system deposits the raw material onto the primary metal detection system, a belt conveyor which carries the raw material through a metal detector aperture. After passing metal detection systems the raw material moves on to the cooking process.

The raw material passing both metal detection systems is transported via enclosed screw conveyors to a crusher system for reducing of the particle size before entering into a holding bin with live bottom screws. From the holding bin the raw material is pumped by a special rotary vane pump into the continuous disc cooker.

The continuous disc cooker is an assembly of a horizontal outer stator shell supported at each end and a steam-heated rotor mounted inside the stator. The rotor consists of a central pipe on which vertical, double-wall discs have been welded. The rotor discs have paddles attached to their periphery. Some of the paddles are mounted on a directional angle and are intended to convey the product along the

rotor and the internal walls of the stator from the drier inlet to the discharge outlet. Other paddles are mounted on a neutral angle and are intended solely to agitate the product as it dries. The rotor discs are heated internally with boiler steam. The product dries when it comes into contact with the hot surfaces of the discs. Since the heat is transferred to the product indirectly through the discs, the condensed steam is withdrawn from the rotor and returned to the boilers for reuse as feed water. Moisture driven from the product during drying is exhausted from the top of the continuous disc cooker as hot steam vapor. This vapor is ducted to the air-cooled condenser where it is condensed back into water.

The infeed of raw materials and the discharge of fat and cooked proteins is done continuously and concurrently. The raw materials are introduced at one end of the cooker and are transported along the length of the stator through the annular space between the rotor and the stator shell. The steam-heated rotor gradually increases the temperature of the material as it progresses towards the outlet end of the cooker. At the completion of the cooking cycle the mixture of fat and solids is discharged from the cooker by an enclosed screw conveyor controlled by a frequency converter, into a rotary separator. Free liquid fat is drained from the solids in the rotary separator. The solids, which still retain absorbed fat, are conveyed to the screw presses. The screw presses completes the separation of the fat from the solids which are discharged from the presses as meal press cake, and transported by enclosed screw conveyors to the meal cooler.

The drained fat from the rotary separator and the screw presses is pumped to a decanter centrifuge for removal of any remaining protein solids. The fat is pumped to fat storage tanks, and some of the fat is transported back into the continuous disc cooker for improvement of the heat transfer. The solids from the decanter centrifuge are discharged into enclosed screw conveyors, and fed into the screw presses.

The poultry meal cooler consists of an outer shell/stator, and a rotor assembly made up of a center pipe with a series of lifting/transport arms. The meal is kept in motion as they travel the length of the meal cooler towards the discharge chute. The

meal cooler has a fan for pulling room air counter flow to the meal travel for cooling. Poultry meal is recovered by a bag-filter prior to discharge into the packed bed scrubber.

The poultry meal is delivered from the drying/cooling process to a curing bin located in the milling room. The curing bin is similar to the raw material receiving bins as it is designed with a live-bottom conveyor system.

Poultry meal is discharged from the curing bin and transported through the milling process with screw conveyors. The meal is first passed over a vibrating screen. Particles that do not pass through the screen are collected and routed to a hammer mill grinder to reduce their size. After grinding, the meal is returned to the vibrating screen. The system is designed to continue cycling over-sized particles to the curing bin and the hammer mill until they pass through the mesh of the vibrating screen. Meal that passes through the screen mesh has met the size classification requirement and is now the finished product.

The raw material silo, crusher, rotary separator, press, fat finishing, and condenser exhausts through a totally enclosed piping system to the regenerative thermal oxidizer (RTO) for destruction of pollutants (primarily odor) prior to release to atmosphere.

E. Line D – Feather/Blood Processing Line

Raw feathers are discharged from the receiving bin and transported via enclosed screw conveyors. The screw conveyor system deposits the feathers onto a belt conveyor which carries them through a metal detector aperture. After passing inspection for metal, the raw feathers move off the end of the belt conveyor and into an enclosed screw conveyor into the hydrolyzer feed hopper.

Feathers consist mostly of keratin, which in the raw state is a nearly indigestible protein. By subjecting the feathers to elevated pressure and temperature, and combining them with water (steam) the keratin undergoes "chemical hydrolysis" and breaks into digestible amino acids. The machine used for this process is the "hydrolyzer". The PPCP hydrolyzers are continuous processors designed for

simultaneous feeding and discharge (vs. batch processing). A controlled injection of steam produced by the plant boilers is used to maintain the internal pressure of the hydrolyzer between 55 psi and 70 psi. The boiler steam is also the heating medium. Raw feathers are forced into the pressure chamber with an auger feeder. Inside the hydrolyzer the feathers are kept in motion with a rotating agitator shaft as they travel the length of the vessel towards the discharge nozzle. The hydrolyzed feathers are discharged from the pressure chamber through a control orifice. The internal pressure is used as a conveyance motive and a mix of steam and hydrolyzed feathers travels through a pipe and into a cyclone separator. In the cyclone the heavier feather solids travel to the bottom of the cyclone cone and are discharged into a holding bin. The steam used for conveying the meal exits the top of the cyclone and is ducted to Line B for reuse as a heating medium. The hydrolysis process physically alters the feathers and they now appear as a wet, granular meal having about 50% moisture content.

Raw poultry blood contains between 16% and 18% protein. It is possible to extract 80%-90% of these proteins by coagulating them into solid form (the balance of the proteins are soluble and remain in the blood serum). Coagulation of protein is accomplished in a cooking process. The PPCP coagulator machine consists of a tubular screw conveyor fitted with boiler steam injection nozzles. Blood is pumped from the receiving tanks into the coagulator where it is heated by the steam. The mix of liquid blood serum and coagulated protein is discharged from the coagulator in slurry form.

The protein solids are removed from the cooked blood slurry using a decanter centrifuge. The slurry discharged from the coagulator is pumped to the decanter where the heavier solids are separated from the liquid serum by centrifugal force. The solids still contain about 60% moisture and are soft enough to be transported by an enclosed screw conveyor or an enclosed drag conveyor. The wet blood solids are transported to the holding bin below the hydrolyzed feathers cyclone separator. The protein rich blood serum is retained for further processing and is pumped to the WWT system.

For compliance with the maximum moisture requirement for finished feather meal the wet mixture of hydrolyzed feathers and blood solids must be dried. In the PPCP, feather meal drying is done in a disc drier. The disc drier consists of an outer shell, or stator, and a rotor assembly made up of a series of hollow discs mounted on a central shaft. The rotor discs have paddles attached to their periphery. Some of the paddles are mounted on a directional angle and are intended to convey the feather meal along the annulus between the rotor and the internal walls of the stator from the drier inlet to the discharge outlet. Other paddles are mounted on a neutral angle and are intended solely to agitate the meal as it dries. The rotor discs are heated internally with boiler steam. The feather meal dries when it comes into contact with the hot surfaces of the discs. Since the heat is transferred to the feather meal indirectly through the discs, the condensed steam is withdrawn from the rotor and returned to the boilers for reuse as feed water. Temperature sensors mounted in contact with the feather meal provides the Process Operators the means to monitor the temperature of the meal as it dries. Moisture driven from the meal during drying is exhausted from the top of the disc drier as hot steam vapor. This vapor is ducted to the Line B where it is reused as a heating medium. The dried feather meal discharged from disc drier is transported by screw conveyors to a meal cooler.

The feather meal cooler consists of an outer shell/stator, and a rotor assembly made up of a center pipe with a series of lifting/transport arms. The meal is kept in motion as they travel the length of the meal cooler towards the discharge chute. The meal cooler has a fan for pulling room air counter flow to the meal travel for cooling. Feather meal is recovered by a bag-filter prior to discharge into the packed bed scrubber.

The meal is delivered from the drying/cooling process to a curing bin located in the milling room. The curing bin is similar to the raw material receiving bins as it is designed with a live-bottom conveyor system.

Feather meal is discharged from the curing bin and transported through the milling process with screw conveyors. The meal is first passed over a vibrating screen. Particles that do not pass through the screen are collected and routed to a

hammer mill grinder to reduce their size. After grinding, the meal is returned to the vibrating screen. The system is designed to continue cycling over-sized particles to the curing bin and the hammer mill until they pass through the mesh of the vibrating screen. Meal that passes through the screen mesh has met the size classification requirement and is now the finished product.

The raw material silo, receiving tank, coagulator, and condenser exhausts through a totally enclosed piping system to the regenerative thermal oxidizer (RTO) for destruction of pollutants (primarily odor) prior to release to atmosphere.

II. Discussion of Emissions

Emissions from this facility result from the combustion of natural gas in the boilers and RTO. All process emissions are controlled. All major process equipment with the exception of the meal cooler and milling plant is controlled by an RTO. The meal cooler and milling plant are equipped with inherent fabric filters prior to discharging to a scrubber. There are five (5) scrubbers that draw air from the process area rooms, primarily to remove heat from the building, but also to insure that in the event that any odors were to escape from process equipment, they would be cleaned prior to discharge to atmosphere.

The scrubbers use a chemical solution containing sodium hypochlorite, however, emissions from the scrubbers resulting from collection of room air and scrubbing solution are expected to be minimal. Uncontrolled particulate emissions going through the scrubbers from meal coolers and milling plants are estimated to be less than one (1) pound per hour.

Several chemicals are used to clean equipment at the facility. Any vapors from chemicals used in the raw receiving and production areas containing sodium hydroxide will go to room air that is exhausted to the scrubbers. Due to the amount and frequency of use of these chemicals, emissions are expected to be minimal. Chemicals containing nitric acid and/or caustic are used as a chemical wash to clean the inside of process equipment. There is no steam during cleaning and therefore, no emissions are expected. The liquid wash will go to trench drains that lead to the facility wastewater treatment

plant. All room air is exhausted through the facility scrubbers, so in the event that any small amount of emissions were discharged from the trench drains they would be exhausted through the scrubbers.

The facility wastewater plant will have two (2) covered anaerobic lagoons with a flare to burn off any odors or gases generated in the lagoon.

SCP plans to operate this facility 24 hours/day, 6 days/week, 52 weeks/yr.

All control equipment is voluntary. The facility has not taken credit for any control equipment in facility total emissions or air dispersion modeling.

III. Collocation

The SC Pet Food Solutions facility is not collocated with any other facilities, including Amick Farms processing facility.

Contiguous or Adjacent Properties: SCP is not contiguous or adjacent to any other Amick Farms facility. The Amick Farms processing facility is approximately six miles from the SC Pet Food Solutions facility.

Common Control: Both entities are limited liability companies. The membership interests of SCP and Amick Farms are not the same; however, Amick Farms holds a [redacted] membership interest in SCP. [redacted] The SC Pet Food Solutions facility and the Amick Farms processing facility do not share a common

workforce or facility managers. The managers at the SC Pet Food Solutions facility will have sole responsibility for pollution control equipment and regulatory compliance at that facility.

Single Major Industrial Grouping: SCP (2077) are in the same industrial grouping as Amick Farms (2015); however, since they are not contiguous or adjacent or under common control, they are not collocated.

IV. Regulatory Review

Prevention of Significant Deterioration – 40 CFR 51 and Regulation 62.5: Air Pollution Control Standards - Standard 7

The PSD regulations apply to major modifications at major stationary sources, which are considered those sources belonging to any one of the 28 source categories listed in the regulations that has the potential to emit more than 100 tons per year of any PSD-regulated compound, or any other source which has the potential to emit more than 250 tons per year of any PSD compound. A major modification is defined as "any change to a major stationary source that would result in a significant emissions increase of any pollutant subject to regulation under the Act." Major modifications are subject to review under the PSD regulations and must meet certain pre-construction review and permitting requirements. SCP does not have the potential to emit more than 250 tons of any pollutant subject to regulation.

New Source Performance Standards (NSPS) – 40 CFR 60

NSPS Subpart Dc applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). The boilers planned for SCP are 62.77 MMBtu/hr each, therefore, this regulation applies to the project.

National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR 63

Subpart JJJJJJ applies to facilities that own or operate an industrial, commercial, or institutional boiler as defined in the regulation that is located at, or is part of, an area source of hazardous air pollutants (HAP). This regulation does not apply to "gas-fired" boilers. The proposed boiler at SCP meets the definition of gas-fired boiler; therefore, this regulation does not apply.

Compliance Assurance Monitoring (CAM) Rule – 40 CFR 64

The CAM Rule (40 CFR Part 64) applies to pollutant-specific emissions units (PSEU) that are pre-control major sources and use a control device to comply with an emissions limit. SCP has no emission units that are major sources with control devices; therefore, this regulation does not apply.

Regulation 62.5: Air Pollution Control Standards Standard No. 1: Emissions from Fuel Burning Operations

Standard No. 1 applies to fuel burning operations defined as "Use of furnace, boiler, device or mechanism used principally but not exclusively, to burn any fuel for the purpose of indirect heating in which the material being heated is not contacted by and adds no substance to the products of combustion." The boiler associated with this project meets the definition of fuel burning equipment and thus is subject to this standard.

Regulation 62.5: Air Pollution Control Standards Standard No. 2: Ambient Air Quality Standards

Standard No. 2 contains ambient air quality standards for criteria pollutants. The equipment will result in criteria pollutant emission points. SCP has submitted air dispersion modeling for all criteria pollutants that are above SCDHEC air dispersion modeling exemption rates, demonstrating that pollutant concentrations are below the applicable air quality standards.

Regulation 62.5: Air Pollution Control Standards Standard No. 3: Waste Combustion and Reduction

Standard No. 3 applies to any source, regardless of type or construction date, which burns any waste other than virgin fuel for any purpose. The RTO at SCP will burn waste process gas and the flare will burn gas from the wastewater lagoon; therefore, this project is subject to this regulation.

Regulation 62.5: Air Pollution Control Standards Standard No. 3.1: Hospital/Medical/Infectious Waste Incinerators (HMIWI)

Standard No. 3.1 applies to any device that combusts hospital/medical/infectious waste. SCP will not combust any hospital/medical/infectious waste thus is not subject to this standard.

Regulation 62.5: Air Pollution Control Standards Standard No. 4: Emissions from Process Industries, Section VIII (Other Manufacturing) and IX (Visible Emissions)

Standard No. 4, Section VIII limits PM emissions and Section IX limits opacity from activities not elsewhere specified. PM emissions are limited by the following process weight-based equation:

$$E = (F)\ 4.10\ P^{0.67}$$

Where E is the allowable emission rate in lb/hr, P is the process weight rate in tons per hour, and F = 1 in this case. For SCP, the smallest P = 2.8 tons/hr, therefore; E = 8.2 lbs/hr, which is well above the estimated process emissions from this facility. Where construction or modification began after December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 20%. This project is subject to Standard No. 4, Sections VIII and IX.

Regulation 62.5: Air Pollution Control Standards Standard No. 5: Volatile Organic Compounds

Standard 5 applies to specific types of facilities listed in the standard with potential VOC emissions of more than 550 pounds in any one day or more than 150

pounds in any one hour (100 tons per year). SCP is located in Saluda County and is not one of the listed affected sources, nor does it have VOC emissions in excess of the listed values therefore, this regulation does not apply.

Regulation 62.5: Air Pollution Control Standards Standard No. 5.1: Best Available Control Technology/Lowest Achievable Emission Rates

This standard requires that the best available control technology be installed on sources for which construction permits are issued after June 25, 2004 when there is a net VOC emissions increase of 100 tons per year or more since the baseline date of July 1, 1979. The VOC emissions expected from this facility are less than 100 tons per year therefore, this standard does not apply.

Regulation 62.5: Air Pollution Control Standards Standard No. 5.2: Control of Oxides of Nitrogen

This standard applies to new combustion sources that emit NOx and have not done a BACT analysis; therefore, this standard does apply to the proposed boiler at SCP.

Regulation 62.5: Air Pollution Control Standards Standard No. 8: Toxic Air Pollutants

The only air toxic emissions expected from processes at this facility, hydrogen sulfide is from the anaerobic wastewater lagoons. Air dispersion modeling has been conducted for all process air toxics above 'de minimis' levels. An air dispersion modeling analysis is not required for the combustion of virgin fuels.

Regulation 62.70: Title V Operating Permit Program

SCP does not have the potential to emit any regulated pollutants above the major source threshold, thus this regulation does not apply.