Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE
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Regional Director

STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE
STATIONARY SOURCE PERMIT TO OPERATE

This permit includes designated equipment subject to New Source Performance Standards (NSPS).
This permit supersedes your permit dated June 12, 2018.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Tyson Farms, Inc.
PO Box 8
Temperanceville, Virginia 23442
Registration No.: 40333

is authorized to construct and operate

a poultry processing and rendering facility

located at

11224 Lankford Highway
Temperanceville, Virginia 23442

in accordance with the Conditions of this permit.

Approved on: **DRAFT**.

_____
Craig R. Nicol

Permit consists of 19 pages.
Permit Conditions 1 to 57.

INTRODUCTION

This permit document is based on and combines permit terms and conditions in accordance with 9VAC5-80-1255 from the following permit approvals and the respective permit applications:

• Permit document (combining minor NSR approvals) dated June 12, 2018 based on the permit applications dated April 5, 1993, May 17, 2001, June 19, 2001, May 19, 2010, August 13, 2013, and July 21, 2017, including amendment information dated June 24, 1993, August 27, 1993, September 10, 20, 24 and 25, 1993, October 6 and 22, 1993, March 24, 1995, July 8, 1996, August 6, 1996, December 18, 1996, July 12, 2000, August 11, 2000, May 21, 2001, June 25, 2001, July 17, 2001, September 13, 2001, October 28, 2002, December 17 and 31, 2002, January 24, 2003, August 11, 2003, October 10, 2003, June 7 and 28, 2010, July 2, 21 and 22, 2010, August 4, 18 and 23, 2010, August 16 and 20, 2013, July 30, 2014, October 7, 2015, November 15, 2017, March 16, 2018, and June 12, 2018, and supplemental information dated September 14, 2017, September 29, 2017, November 15, 2017, December 20, 2017, and February 14, 2018.

• State operating permit approval dated [**DRAFT**] based on the permit application dated December 3, 2020.

Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action. In addition, this facility may be subject to additional applicable requirements not listed in this permit.

Words or terms used in this permit shall have meanings as provided in 9VAC5-10-10 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition. The most recent effective date for a term or condition is listed in brackets [ ]. When identical conditions on approval for an emission unit or units are combined, the effective date listed in this permit does not alter the prior effective date(s) for any such conditions as issued in a previous permit approval. In accordance with 9VAC5-80-1120(F), any condition not marked as state-only enforceable (SOE) is state and federally enforceable.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9VAC5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

Equipment List - Equipment at this facility covered by this permit consists of:

Equipment permitted by this permit			
Reference No.	Equipment Description	Rated Capacity	Federal Requirements
PG2	John Deere kW diesel-fired engine emergency generator set, Serial number PE6068T478096, 1993	190 hp	NA
PG3	Perkins diesel-fired engine emergency fire pump Model PDFP L4YN, 1/1999	67 hp	NA
PH1	Propane/NG-fired hot water heater	12.5 MMBtu/hr	NA
PH2	Propane/NG-fired hot water heater	12.5 MMBtu/hr	NA
RTU-1	Propane/NG-fired roof top unit	1.6 MMBtu/hr	NA
RTU-2	Propane/NG-fired roof top unit	5.035 MMBtu/hr	NA
RTU-3	Propane/NG-fired roof top unit	5.035 MMBtu/hr	NA
RTU-4	Propane/NG-fired roof top unit	5.035 MMBtu/hr	NA
RTU-5	Propane/NG-fired roof top unit	3.195 MMBtu/hr	NA
RTU-6	Propane/NG-fired roof top unit	5.035 MMBtu/hr	NA
RTU-10	Propane/NG-fired roof top unit	3.195 MMBtu/hr	NA
RTU-11	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
RTU-12	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
RTU-13	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
RTU-14	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
RTU-15	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
RTU-16	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
KK-1	Propane/NG-fired roof top unit	3.357 MMBtu/hr	NA
H1	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H2	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H3	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H4	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H5	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H6	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H7	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H8	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H9	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H10	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H11	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H12	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H13	Propane/NG-fired roof top unit	0.285 MMBtu/hr	NA
H14	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
H15	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
H16	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
H17	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
H18	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
H19	Propane/NG-fired roof top unit	0.36 MMBtu/hr	NA
H20	Propane/NG-fired roof top unit	0.35 MMBtu/hr	NA
H21	Propane/NG-fired roof top unit	0.35 MMBtu/hr	NA
H22	Propane/NG-fired roof top unit	0.225 MMBtu/hr	NA
H23	Propane/NG-fired roof top unit	0.148 MMBtu/hr	NA
H24	Propane/NG-fired roof top unit	0.148 MMBtu/hr	NA
H25	Propane/NG-fired roof top unit	0.065 MMBtu/hr	NA
H26	Propane/NG-fired roof top unit	0.25 MMBtu/hr	NA
H27	Propane/NG-fired roof top unit	0.25 MMBtu/hr	NA
H28	Propane/NG-fired roof top unit	0.25 MMBtu/hr	NA
H29	Propane/NG-fired roof top unit	0.25 MMBtu/hr	NA
H30	Propane/NG-fired heater	0.05 MMBtu/hr	NA

Equipment permitted by this permit			
Reference No.	Equipment Description	Rated Capacity	Federal Requirements
H31	Propane/NG-fired heater	0.05MMBtu/hr	NA
H32	Propane/NG-fired heater	0.05MMBtu/hr	NA
H33	Propane/NG-fired heater	0.05 MMBtu/hr	NA
H34	Propane/NG-fired heater	1.23 MMBtu/hr	NA
H35	Propane/NG-fired heater	0.88 MMBtu/hr	NA
CR1	Propane/NG-fired heater	0.25 MMBtu/hr	NA
SCH1	Propane/NG-fired heater	0.1 MMBtu/hr	NA
SCH2	Propane/NG-fired heater	0.1 MMBtu/hr	NA
SCH3	Propane/NG-fired heater	0.1 MMBtu/hr	NA
SCH4	Propane/NG-fired heater	0.1 MMBtu/hr	NA
SCH5	Propane/NG-fired heater	0.1 MMBtu/hr	NA
WW1	Propane/NG-fired heater	0.06 MMBtu/hr	NA
WW2	Propane/NG-fired heater	0.06 MMBtu/hr	NA
WW3	Propane/NG-fired heater	0.06 MMBtu/hr	NA
WW4	Propane/NG-fired heater	0.06 MMBtu/hr	NA
WW5	Propane/NG-fired heater	0.08 MMBtu/hr	NA

Equipment permitted prior to the date of this permit				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Original Permit Date
PB1	Cleaver Brooks Boiler, installed 1971	14.7 MM Btu/hr	NA	11/08/93 NSR
PB2	Cleaver Brooks Boiler, installed 1967	14.7 MM Btu/hr	NA	11/08/93 NSR
PB3	Cleaver Brooks Boiler, installed 1969	6.3 MM Btu/hr	NA	11/08/93 NSR
RB1	Cleaver Brooks Boiler, installed 1977	29.3 MM Btu/hr	NA	11/08/93 NSR
RB2	Cleaver Brooks Boiler, installed 1972	29.3 MM Btu/hr	NA	11/08/93 NSR
RB3	Cleaver Brooks Boiler, installed 1977	29.3 MM Btu/hr	NA	11/08/93 NSR
RB4	Cleaver Brooks Boiler, original installed 1993; replaced 2016	29.3 MM Btu/hr	NSPS Subpart Dc	11/08/93 NSR
PG1	1,100 KW diesel-fired engine emergency generator set, Katolight Model D1000FPZ4, 2005	1,490 hp	NA	7/17/01

Rendering Processes Pollution Control Devices permitted prior to the date of this permit				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Original Permit Date
Meat side scrubber system - three units connected in series, one stack (EP-TP-CE-03)				
CE-01	IES venturi, using water	20,000 cfm	NA	9/17/10 NSR
CE-02	IES packed bed scrubber, 95% control efficiency, using water and ClO2, or an equivalent scrubbing solution as approved by DEQ	30,000 cfm	NA	9/17/10 NSR
CE-03	IES packed bed scrubber, 95% control efficiency, using water and ClO2, or an equivalent scrubbing solution as approved by DEQ	100,000 cfm	NA	9/17/10 NSR
CE-04	IES packed bed scrubber, 95% control efficiency, using water and ClO2, or an equivalent scrubbing solution as approved by DEQ	100,000 cfm	NA	9/17/10 NSR

Rendering Process Equipment permitted/installed prior to the date of this permit				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Original Permit Date
Poultry Meat and Fat Rendering				
RE-01-02	Cooker feed bins (2), conveyors, 2004	60,000 lbs/hr	NA	Some process equipment and control equipment were permitted for installation by the first NSR permit dated 11/08/93 which also listed all equipment already existed at the time. Several revisions followed; the latest was on 9/17/10.
RE-04	Steam Preheater, Haarslev RCD 1533, 1996	60,000 lbs/hr	NA	
RE-05	Rotor Drum, LYCO, 48'x72" single drum, 2004	60,000 lbs/hr	NA	
RE-06	Twin Screw Press Haarslev MS-64FK, 2004	60,000 lbs/hr	NA	
RE-07	Pet Food Cooker (vents to cyclone RE-07A, and condenser RE-07B), Haarslev TST100, 1992	60,000 lbs/hr	NA	
RE-07A	Meat Cooker Cyclone, Haarslev 1992	35,000 lb/hr	NA	
RE-07B	Meat Cooker Condenser, CA Technologies, 2007	35,000 lb/hr	NA	
RE-08	Percolator, Haarslev, 1992	60,000 lbs/hr	NA	
RE-09, RE-10 & RE-48	Expeller Presses (3), Haarslev SBH Expeller 300, 1992	12,000 lbs/hr each	NA	
RE-11	Hammermill, BLISS IER-3820, 2002	12,000 lbs/hr each	NA	
RE-12A-C	Rotex Screens (3) (vents to aspirator RE-12D), ROTEX 321A, 1992	12,000 lbs/hr each	NA	
RE-12D	Aspirator	NA	NA	
RE-13-18	Meat Meal Silos (6), HARVESTOR, #1-3:1970, #4-5:2009, #6:1994 (vent to atmosphere)	12,000 lbs/hr each	NA	
RE-19	Fat Sweco Screen, Sweco 60", 1996	10,000 lbs/hr	NA	
RE-20	Fat Centrifuge Feed Tank, 500 gallon, 1992	10,000 lbs/hr	NA	
RE-21	Fat Centrifuge, Bird 34x38, 1992	10,000 lbs/hr	NA	
RE-22	Inside Fat Storage Tank, 500 gallon, 1992	10,000 lbs/hr	NA	
RE-23-26	Outside Fat Storage Tanks (vent to atmosphere)	NA	NA	
RE-27	Waste heat evaporator (no emissions), Haarslev 25K, 1992	NA	NA	
RE-28	Meat Meal Truck Load-out, Conveyors, 1992 (vent to atmosphere)	40,000 lbs/hr	NA	

Rendering Process Equipment permitted/installed prior to the date of this permit				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Original Permit Date
Feather and Blood Rendering				
RE-29	Raw feather dump to floor, 1992	NA	NA	Some process equipment and control equipment were permitted for installation by the first NSR
RE-30-32	Cookers (3), Anco 5x16, 1992 (vent to hydrolyzer cyclone RE-47 and feather condenser RE-49)	10,000 lbs/batch each	NA	
RE-36	Feather Dump Pan, Conveyor, 2009	30,000 lbs/hr	NA	
RE-37	Rotex Screen, 48", 2012	20,000 lbs/hr	NA	
RE-38/39	Feather Dryers A/B (Each vent to feather cyclones RE-38A and 39B, then to feather condenser RE-49), Haarslev, 1996	12,500 lbs/hr each	NA	
RE-40	Feather Hammermill, Bliss 3820, 2004	20,000 lbs/hr	NA	

Rendering Process Equipment permitted/installed prior to the date of this permit				
Reference No.	Equipment Description	Rated Capacity	Federal Requirements	Original Permit Date
Feather and Blood Rendering				
RE-41	Feather Rotex Screen, 2004	12,000 lbs/hr	NA	permit dated 11/08/93 which also listed all equipment already existed at the time. Several revisions followed; the latest was on 9/17/10.
RE-42	Feather Silo, Harvestor 60', 2004 (vent to atmosphere)	12,000 lbs/hr	NA	
RE-43	Feather Meal Truck Loadout, Conveyors, 2004 (vent to atmosphere)	50,000 lbs/hr	NA	
RE-44	Blood Receiving Tank, 6,000 gallon, 2004	8,000 lbs/hr	NA	
RE-45	Blood Coagulator, Sparge Tube, 2004 (vent to feather condenser RE-49)	8,000 lbs/hr	NA	
RE-46	Blood Centrifuge, Bird 18x42, 2009 (vent to feather condenser RE-49)	8,000 lbs/hr	NA	
RE-47	Hydrolyzer Cyclone, CA Technologies, 2007	20,000 lb/hr	NA	
RE-38A & 39B	Feather Dryer Cyclones (2), CA Technologies 2007	20,000 lb/hr	NA	
RE-49	Feather Condenser, Millpoint 1992	30,000 lb/hr	NA	
RE-50 & 51	Cookers (2), Anco 1700, 2013 (vent to hydrolyzer cyclone RE-47 and feather condenser RE-49)	5,714 lbs/hr each	NA	9/18/14

Specifications included in the above tables are for informational purposes only and do not form enforceable terms or conditions of the permit.

RENDERING OPERATION REQUIREMENTS

PROCESS REQUIREMENTS

1. Emission Controls - Emissions with low intensity odor from room air of the following meat and fat rendering process equipment shall be controlled by the meat side 100,000 cfm packed bed scrubber (CE-03) that uses water and ClO2, or an equivalent solution as approved by DEQ:

   Cooker feed bins RE-01 and 02
   Rotor drum RE-05
   Fat Sweco Screen RE-19

   The control equipment shall be provided with adequate access for inspection, and shall be in operation when the rendering plant is operating.
   (9VAC5-80-1180 and 9VAC5-50-260) [June 26, 2018 NSR]

2. Emission Controls - Emissions with high intensity odor from the following meat and fat rendering process equipment shall be controlled by the meat side scrubber system (CE-01/CE-02/CE-03):

   Steam preheater RE-04
   Twin screw press RE-06
   Pet Food Cooker RE-07, via cyclone RE-07A and condenser RE-07B
   Meat Cooker cyclone RE-07A, via condenser RE-07B
   Meat Cooker condenser RE-07B
   Perculator RE-08
   Expeller presses RE-09, 10, and 48

Hammermill RE-11
Rotex screens RE-12 A-C, via aspirator (RE-12D)
Fat centrifuge Feed tank RE-20
Fat centrifuge RE-21
Inside fat storage RE-22
Waste heat evaporator RE-27, via condenser RE-07B

Scrubber liquid for venturi scrubber CE-01 is water.
Scrubber liquid for packed bed scrubbers CE-02 and CE-03 is water and ClO2, or an equivalent solution as approved by DEQ.
The control equipment shall be provided with adequate access for inspection, and shall be in operation when the rendering plant is operating.
(9VAC5-80-1180 and 9VAC5-50-260) [June 26, 2018 NSR]

3. Emission Controls - Emissions with low intensity odor from room air of the following feather and blood rendering process equipment shall be controlled by the feather side 100,000 cfm packed bed scrubber (CE-04) that uses water and ClO2, or an equivalent solution as approved by DEQ:

Raw feather dump RE-29
Cookers RE-30-32 and RE-50-51
Feather dump pan RE-36
Rotex screen RE-37
Rotex screen RE-40
Hammermill RE-41
Blood receiving tank RE-44
Blood coagulator RE-45

The control equipment shall be provided with adequate access for inspection, and shall be in operation when the rendering plant is operating.
(9VAC5-80-1180 and 9VAC5-50-260) [June 26, 2018 NSR]

4. Emission Controls - Emissions with high intensity odor from the following feather and blood rendering process equipment shall be controlled by the meat side scrubber system (CE-01/CE-02/CE-03):

Feather cookers RE-30-32 and RE-50-51, via hydrolyzer cyclone RE-47 and feather condenser RE-49
Feather dryers RE-38 and 39, via feather cyclones RE-38A and 39B, and feather condenser RE-49
Feather cyclones RE-38A and 39B, via feather condenser RE-49
Blood coagulator RE-45, via feather condenser RE-49
Blood centrifuge RE-46, via feather condenser RE-49
Hydrolyzer cyclone RE-47, via feather condenser RE-49
Feather condenser RE-49

Scrubber liquid for venturi scrubber CE-01 is water.
Scrubber liquid for packed bed scrubbers CE-02 and CE-03 is water and ClO2, or an equivalent solution as approved by DEQ.
The control equipment shall be provided with adequate access for inspection, and shall be in operation when the rendering plant is operating.
(9VAC5-80-1180 and 9VAC5-50-260) [June 26, 2018 NSR]

5. Monitoring Devices - Each of the scrubbers CE-01, CE-02, CE-03, and CE-04 shall be equipped with devices to continuously measure the scrubbing liquid flow rate and differential pressure across the scrubber. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the scrubber is operating.
(9VAC5-80-1180(D)) [June 26, 2018 NSR]

6. Monitoring Devices - Each of the scrubbers CE-01, CE-02, and CE-03 shall be equipped with a continuous data recorder system and a high/low level alarm for the scrubbing liquid flow rate. Each monitoring device shall be installed, maintained, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the scrubber is operating.
(9VAC5-80-1180(D)) [June 26, 2018 NSR]

7. Monitoring Device Observation - To ensure good performance, the monitoring devices used to continuously measure differential pressure across each of the scrubbers (CE-01, CE-02, CE-03, and CE-04) shall be observed by the permittee with a frequency of at least once per shift. The permittee shall keep a log of the monitoring device observations.
(9VAC5-80-1180(D)) [June 26, 2018 NSR]

8. Monitoring Device Observation - To ensure good performance, the monitoring device used to continuously measure the scrubbing liquid flow rate for the packed bed scrubber CE-04 shall be observed by the permittee with a frequency of at least once per shift. The permittee shall keep a log of the monitoring device observations.
(9VAC5-80-1180(D)) [June 26, 2018 NSR]

9. Throughput - The throughput of raw material of poultry offal (meat and fat), feather or blood rendered shall not exceed 388,000 tons per year from all sources, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-1180) [June 26, 2018 NSR]

10. Production - The production of poultry meat meal shall not exceed 45,000 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-1180) [June 26, 2018 NSR]

11. Production - The production of feather meal shall not exceed 35,000 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-1180) [June 26, 2018 NSR]

12. Emission Limits - Emissions from the meat side 100,000 cfm packed bed scrubber stack (EP-TP-CE-03) shall not exceed the limits specified below:

Particulate Matter (PM)	7.2 tons/yr
PM-10	4.2 tons/yr
PM-2.5	1.5 tons/yr
Volatile Organic Compounds	10.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 4, 5, 6, 7, 9, 10, 11, and 16.
(9VAC5-80-1180 and 9VAC5-50-260) [June 26, 2018 NSR]

13. Emission Limits - Emissions from the feather side 100,000 cfm packed bed scrubber stack (EP-TP-CE-04) shall not exceed the limits specified below:

Particulate Matter (PM)	3.1 tons/yr
PM-10	2.3 tons/yr
PM-2.5	1.1 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 3, 5, 7, 8, 9, 11, and 16.
(9VAC5-80-1180 and 9VAC5-50-260) [June 26, 2018 NSR]

14. Emission Limits - Total emissions from the rendering operation shall not exceed the limits specified below:

Particulate Matter (PM)	11.1 tons/yr
PM-10	6.7 tons/yr
PM-2.5	2.5 tons/yr
Volatile Organic Compounds	10.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1 - 11, and 16.
(9VAC5-80-1180 and 9VAC5-50-260) [June 26, 2018 NSR]

15. Operating and Training Procedures - Rendering plant emissions shall be controlled by proper operation and maintenance of air pollution control equipment. Rendering plant operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for all rendering plant process equipment and air pollution control equipment. These

procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ. (9VAC5-80-1180) [June 26, 2018 NSR]

RECORDS

16. On-Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Tidewater Regional Office. These records shall include, but are not limited to:

    a. Monitoring device observation records of differential pressure across each of the scrubbers CE-01, CE-02, CE-03, and CE-04.

    b. Monitoring device observation records of scrubbing liquid flow rate for packed bed scrubber CE-04.

    c. Continuous monitoring records of scrubbing liquid flow rate for scrubbers CE-01, CE-02, and CE-03.

    d. Annual throughput of poultry offal, feather and blood rendered, calculated monthly as the sum of each consecutive 12-month period.

    e. Annual production of poultry meat meal, calculated monthly as the sum of each consecutive 12-month period.

    f. Annual production of feather meal, calculated monthly as the sum of each consecutive 12-month period.

    g. Records of corrective actions, scheduled and unscheduled maintenance and operator training for air pollution control devices.

    These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-1180 and 9VAC5-50-50) [June 26, 2018 NSR]

FUEL BURNING OPERATION REQUIREMENTS

17. Fuel - The approved fuels for the seven (7) boilers (Unit Ref. Nos. RB1, RB2, RB3, RB4, PB1, PB2, and PB3) are propane and natural gas (NG). A change in the fuel shall be considered a change in the method of operation of the process and may require a new or amended permit. However, if a change in the fuel is not subject to new source review permitting requirements, this condition should not be construed to prohibit such a change.
    (9VAC5-80-1180 and 9VAC5-80-260) [June 26, 2018 NSR]

18. Fuel - The approved fuels for the small combustion units (SCU) (Unit Ref. Nos. PH1, PH2, RTU-1 through RTU-6, RTU-10 through RTU-16, KK-1, H1 through H35, CR1, SCH1 through SCH5, and WW1 through WW5) are propane and NG. A change in the fuel shall be considered a change in the method of operation of the process and may require a new or amended permit. However, if a change in the fuel is not subject to new source review permitting requirements, this condition should not be construed to prohibit such a change.
    (9VAC5-80-850) [**DRAFT**]

19. Fuel Throughput - The boilers (Unit Ref. Nos. RB1, RB2, RB3, RB4, PB1, PB2, and PB3) and the SCUs (Unit Ref. Nos. PH1, PH2, RTU-1 through RTU-6, RTU-10 through RTU-16, KK-1, H1 through H35, CR1, SCH1 through SCH5, and WW1 through WW5), combined, shall be limited to the following fuel throughput limits:

    Propane fuel: 13,569,230 gallons per year, when NG is not burned in the same consecutive 12 month period.

    Natural Gas: 1,764 x 106 cubic feet per year, when NG is not burned in the same consecutive 12 month period.

    When both propane fuel and natural gas are consumed in the same consecutive 12 month period, fuel consumption shall be limited by the following:

    Gallons of propane fuel per year = [13,569,230 - (0.007692307 x (NG))] where:
    (NG) is the total amount of NG in cubic feet per year, burned by the emission units.

    Cubic feet of natural gas per year = [1,764 x 106 - (130.00 x (Propane))] where:
    (Propane) is the total amount of propane fuel in gallons per year, burned by the emission units.

    Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
    (9VAC5-80-850) [**DRAFT**]

20. Operating and Training Procedures - Boiler emissions shall be controlled by proper operation and maintenance of combustion equipment. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
    (9VAC5-80-1180) [June 26, 2018 NSR]

21. Visible Emission Limit - Visible emissions from boiler RB4 shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 27 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, or malfunction.
    (9VAC5-50-80, 9VAC5-50-260, and 9VAC5-50-410) [June 26, 2018 NSR]

22. Visible Emission Limit - Visible emissions from boilers PB1, RB1, RB2, and RB3 shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, or malfunction.
    (9VAC5-50-80 and 9VAC5-50-260) [June 26, 2018 NSR]

23. Visible Emission Limit - Visible emissions from boilers PB2 and PB3 shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). (9VAC5-40-80) [June 26, 2018 NSR]

24. Requirements by Reference - Except where this permit is more restrictive than the applicable requirement, the NSPS equipment as described in the Equipment table of the Permit Introduction shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc. All applicable requirements of 40 CFR 60, Subpart Dc may not be specifically listed in this permit. The permittee should refer to the applicable regulation for additional requirements not included in this permit. (9VAC5-80-1180, 9VAC5-50-400, and 9VAC5-50-410) [**DRAFT**]

25. Emission Limits - Emissions from the operation of each boiler shall not exceed the limits specified below:

Units PB1 and PB2, each	
PM-10	0.11 lbs/hr
Nitrogen Oxides (as NO2)	2.09 lbs/hr
Carbon Monoxide	1.21 lbs/hr
Volatile Organic Compounds	0.16 lbs/hr
Unit PB3	
Nitrogen Oxides (as NO2)	0.90 lbs/hr
Carbon Monoxide	0.52 lbs/hr
Units RB1, RB2, RB3, and RB4, each	
PM-10	0.22 lbs/hr
Nitrogen Oxides (as NO2)	4.16 lbs/hr
Carbon Monoxide	2.41 lbs/hr
Volatile Organic Compounds	0.32 lbs/hr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 17, 21 - 23, 32, 33, and 35.
(9VAC5-50-260) [June 26, 2018 NSR]

26. Emission Limits - Emissions from the seven boilers (Unit Ref. Nos. RB1, RB2, RB3, RB4, PB1, PB2, and PB3) and the SCUs (Unit Ref. Nos. PH1, PH2, RTU-1 through RTU-6, RTU-10 through RTU-16, KK-1, H1 through H35, CR1, SCH1 through SCH5, and WW1 through WW5), combined, shall not exceed the limits specified below:

PM	1.68 tons/yr
PM-10	6.70 tons/yr
PM-2.5	6.70 tons/yr

Sulfur Dioxide	10.18 tons/yr
Nitrogen Oxides (as NO2)	88.20 tons/yr
Carbon Monoxide	74.09 tons/yr
Volatile Organic Compounds	5.43 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 17 - 19, 21 - 24, and 35.
(9VAC5-80-850) [**DRAFT**]

EMERGENCY GENERATOR OPERATION LIMITATIONS

27. Emergency Use - The emergency engine-generators (Ref. Nos. PG1 and PG2) shall only be operated in the following modes:

    a. In situations that arises from sudden and reasonably unforeseeable events where the primary energy or power source is disrupted or disconnected due to conditions beyond the control of an owner or operator of a facility including:

        i. A failure of the electrical grid;

        ii. On-site disaster or equipment failure; or

        iii. Public service emergencies such as flood, fire, natural disaster, or severe weather conditions.

    b. For participation in an ISO-declared emergency (if enrolled), where an ISO emergency is:

        i. An abnormal system condition requiring manual or automatic action to maintain system frequency, to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property;

        ii. Capacity deficiency or capacity excess conditions;

        iii. A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel;

        iv. Abnormal natural events or man-made threats that would require conservative operations to posture the system in a more reliable state; or

        v. An abnormal event external to the ISO service territory that may require ISO action.

    c. For periodic maintenance, testing, and operational training.

    The emergency engine-fire pump (Ref. No. PG3) shall be used only during fire episodes, periodic maintenance testing, and operational training. Total combined use of each emergency engine shall not exceed 500 hours per year, calculated monthly as the sum of each consecutive 12-month period. Records shall be kept for the hours of operation and reason for operation including emergency operation, testing of the unit, and/or maintenance.
    (9VAC5-80-1180 and 9VAC5-80-850) [**DRAFT**]

28. Fuel - The approved fuel for the PG1, PG2, and PG3 compression-ignition (CI) engines is diesel fuel. The diesel fuel shall meet the ASTM D975 specification for S15 diesel fuel oil with a maximum sulfur content per shipment of 0.0015%. A change in the fuel shall be considered a change in the method of operation of the generator's engine and may require a new or amended permit. However, if a change in the fuel is not subject to new source review permitting requirements, this condition should not be construed to prohibit such a change.
(9VAC5-80-850) [**DRAFT**]

29. Fuel Certification - The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel. Each fuel supplier certification shall include the following:

    a. The name of the fuel supplier;

    b. The date on which the diesel fuel was received;

    c. The quantity of diesel fuel delivered in the shipment;

    d. A statement that the diesel fuel complies with the American Society for Testing and Materials specifications (ASTM D975) for S15 diesel fuel oil; and

    e. The sulfur content of the diesel fuel.

    Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 28 of this permit. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9VAC5-80-850) [**DRAFT]**

30. Emission Limits - Emissions from the operation of the engine-generators (Ref. Nos. PG1 and PG2) and the engine-fire pump (Ref. No. PG3) shall not exceed the limits specified below:

    <u>Unit PG1</u>

Nitrogen Oxides (as NO_2)	4.8 tons/yr
Carbon Monoxide	2.1 tons/yr

    <u>Combined Units PG2 and PG3</u>

Nitrogen Oxides (as NO_2)	2.0 tons/yr

    These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 27 - 29, and 35.
(9VAC5-80-850) [**DRAFT**]

31. Stack Tests - Upon request by the DEQ, the permittee shall conduct additional performance tests for criteria pollutants from each boiler stack to determine compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Tidewater Regional Office.
(9VAC5-50-30(G)) [June 26, 2018 NSR]

32. Visible Emissions Evaluation - Upon request by the DEQ, the permittee shall conduct additional visible emissions evaluations from each boiler stack to demonstrate compliance with the visible emission limits contained in this permit. The details of the tests shall be arranged with the Tidewater Regional Office.
(9VAC5-50-30(G)) [June 26, 2018 NSR]

33. Visible Emissions Observations - The permittee shall check each boiler (Unit Ref. Nos. RB1, RB2, RB3, RB4, PB1, PB2, and PB3) stack at least once per calendar month during daylight hours of operations for visible emissions for at least six minutes. If visible emissions are noted from any of the stacks, maintenance shall be performed on the boiler(s) to eliminate the visible emissions. If visible emissions continue after maintenance actions, a visible emissions evaluation (VEE) shall be immediately conducted on each stack for at least six minutes in accordance with Method 9 (40 CFR 60, Appendix A). If the VEE opacity average for either stack exceeds ten (10) percent, the VEE shall continue for one hour from initiation on each stack. If compliance is not demonstrated by this VEE, timely corrective action shall be taken to bring the boiler back to compliance. Results of observations and/or VEEs shall be recorded in the operation log. Records of observations shall include the following:

    a. The name of the observer.

    b. Date and time of the observation.

    c. An indication of presence or absence of visible emissions.

    d. Whether the emissions are representative of normal operation.

    e. If emissions are not representative of normal operation, the cause of the abnormal emissions.

    f. The duration of any visible emission incident, and any corrective action to eliminate visible emissions.

    g. If a VEE is conducted, records shall be in accordance with Method 9 (40 CFR 60, Appendix A).

    (9VAC5-80-1180) [June 26, 2018 NSR]

34. Testing/Monitoring Ports - The permitted facility shall be constructed so as to allow for emission testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stacks or ducts free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations or in accordance with the applicable performance specifications (Reference 40 CFR Part 60, Appendix B).
(9VAC5-80-1180 and 9VAC5-50-30(F)) [June 26, 2018 NSR]

RECORDKEEPING AND REPORTING

35. On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Tidewater Regional Office. These records shall include, but are not limited to:

    a. Annual number of operating hours for the emergency generators and emergency fire water pump, calculated monthly as the sum of each consecutive 12-month period.

b. Annual throughputs of propane fuel (in gallons) and NG (in cubic feet) for the emission units listed in Condition 19 of the permit.

c. Results from stack tests, visible emission observations, and visible emissions evaluations (Method 9, 40 CFR 60, Appendix A).

d. Scheduled and unscheduled maintenance and operator training.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-1180, 9VAC5-80-850, and 9VAC5-50-50) [**DRAFT**]

36. On-Site Records - The permittee shall maintain and have available a listing of the names, addresses and phone numbers of the persons who are accountable for the daily operations of the plant. A log shall be kept showing the dates and times that the equipment is down for repairs. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-1180) [June 26, 2018 NSR]

GENERAL CONDITIONS

37. Permit Suspension/Revocation - This permit may be suspended or revoked if the permittee:

a. Knowingly makes material misstatements in the permit application or any amendments to it;

b. Fails to comply with the conditions of this permit;

c. Fails to comply with any emission standards applicable to a permitted emissions unit;

d. Causes emissions from the stationary source which result in violations of, or interfere with the attainment and maintenance of, any ambient air quality standard; or

e. Fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time an application for this permit is submitted.

(9VAC5-80-1210(F))

38. Right of Entry - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;

b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;

c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and

d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
(9VAC5-170-130 and 9VAC5-80-1180)

39. Maintenance/Operating Procedures - At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
(9VAC5-50-20(E) and 9VAC5-80-1180(D))

40. Record of Malfunctions - The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9VAC5-20-180(J) and 9VAC5-80-1180(D))

41. Notification for Facility or Control Equipment Malfunction - The permittee shall furnish notification to the Director, Tidewater Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Director, Tidewater Regional Office.
(9VAC5-20-180(C) and 9VAC5-80-1180)

42. Violation of Ambient Air Quality Standard - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9VAC5-20-180(I) and 9VAC5-80-1180)

43. Change of Ownership - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Tidewater Regional Office of the change of ownership within 30 days of the transfer.
(9VAC5-80-1240)

44. Permit Copy - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9VAC5-80-1180)

STATE-ONLY ENFORCEABLE REQUIREMENTS

The following terms and conditions are included in this permit to implement the requirements of 9VAC5-40-130 et seq., 9VAC5-50-130 et seq., 9VAC5-60-200 et seq. and/or 9VAC5-60-300 et seq. and are enforceable only by the Virginia Air Pollution Control Board. Neither their inclusion in this permit nor any resulting public comment period make these terms federally enforceable.

45. Emission Controls - In addition to the scrubbers (CE-01, 02, 03, and 04), odor emissions from the rendering plant operations shall be controlled by proper operation and maintenance of the rendering plant. The rendering plant shall be provided with adequate access for inspection. (9VAC5-50-140 and 9VAC5-80-1180)

46. Operating Limitation - All exterior doors for the rendering process areas shall be equipped with automatic closure devices (except for overhead roll-up doors). The permittee shall regularly monitor doors that are open for make-up air to ensure some negative pressure so that no odors escape. Monitoring for the negative pressure shall be conducted on a monthly basis, during normal operating conditions. The permittee shall keep a log of negative pressure checks. (9VAC5-50-140 and 9VAC5-80-1180)

47. Operating Limitation - All material received at the rendering plant shall be processed or hauled away before it has decomposed to the extent that it causes objectionable odors. (9VAC5-50-140 and 9VAC5-80-1180)

48. Operating Limitation - Each loaded truck shall be covered with tarp until it is unloaded. The staging and load-out areas must be paved and coated with nonporous material which is easy to clean. The staging and load-out areas must be cleaned within four hours of any spillage. Wastewater from the clean-up shall be directed to the sewer system. (9VAC5-50-140 and 9VAC5-80-1180)

49. Operating Limitation - Each truck shall be washed promptly after being emptied. Wastewater from the clean-up shall be directed to the sewer system. (9VAC5-50-140 and 9VAC5-80-1180)

50. Operating Limitation - Truck transit areas around the rendering plant shall be paved with a non-porous material to avoid malodorous contamination and shall be kept in a clean condition. (9VAC5-50-140 and 9VAC5-80-1180)

51. Operating Limitation - There shall be no ponded water outside of the rendering plant. (9VAC5-50-140 and 9VAC5-80-1180)

52. Operating Limitation - All spilled finished product shall be cleaned up promptly. (9VAC5-50-140 and 9VAC5-80-1180)

53. Odor Response Plan - The permittee shall prepare a plan to prevent, detect and correct excessive odor emissions. The plan shall include all of the following:

    a. A complete preventative maintenance program, including identification of the supervisory personnel responsible for overseeing the inspection, maintenance and repair of the processing equipment and pollution control equipment. The plan shall also include a description of the items or conditions that shall be inspected, the frequencies of inspections, maintenance and repairs, and an identification of the major replacement parts that shall be retained in inventory for quick replacement; and

    b. A description of the source and the air-cleaning device operating parameters that shall be monitored to detect a malfunction, the normal operating range for these parameters, and a narrative of the standard operating procedures for this device.

c. The permittee shall develop and maintain onsite an Emergency Odor Response Plan to describe activities necessary to prevent excess odor incidents as much as possible and promptly control and eliminate the excess odor emissions during unavoidable incidents. These activities shall include, but are not limited to, diversion of on-site material to other facilities and/or refusal of off-site material. The plan shall also establish criteria for when to terminate processing and how to handle unprocessed material inside the rendering area.

(9VAC5-50-140 and 9VAC5-80-1180)

54. Excessive Odor Requirements - The permittee shall keep a log of odor complaints received and corrective actions taken. If DEQ investigates an odor complaint and determines that excessive odor does exist, the DEQ may require that the raw materials no longer be fed to the process causing the odor. The remaining raw materials for this process and any incoming raw materials shall be diverted to another plant site until the problem is corrected.
(9VAC5-50-140 and 9VAC5-80-1180)

55. Monitoring Device for Odor Control - Each of the packed bed scrubbers CE-02, CE-03, and CE-04 shall be equipped with devices to continuously measure the scrubbing liquid oxidation-reduction potential (ORP). Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the scrubber is operating.
(9VAC5-80-1180(D))

56. Monitoring Device Observations for Odor Control - To ensure good performance for the packed bed scrubbers (CE-02, CE-03, and CE-04) in odor control, the monitoring device used to measure the scrubbing liquid oxidation-reduction potential (ORP) shall be observed by the permittee with a frequency of at least once per shift. The permittee shall keep a log of the observations.
(9VAC5-50-140 and 9VAC5-80-1180)

57. On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

a. Records of negative pressure checks.

b. Records of odor complaints that the permittee received and corrective actions taken.

c. Emergency Odor Response Plan.

d. Monitoring device observation records of the scrubbing liquid oxidation-reduction potential (ORP).

(9VAC5-50-140 and 9VAC5-80-1180)