

Air Permit Review

Permit Issue Date: June 8, 2005

Region: Fayetteville Regional Office
County: Bladen
NC Facility ID: 0900055
Inspector's Name: James Moser
Date of Last Inspection: 03/09/2005
Compliance Code: 3/In Compliance - Inspection

Facility Data			Permit Applicability (this application only)
Applicant (Facility's Name): Smithfield Packing Company Inc - Tar Heel Facility Address: Smithfield Packing Company Inc - Tar Heel NC Highway 87 Tar Heel, NC 28392 SIC: 2077 / Animal And Marine Fats And Oil NAICS: 311613 / Rendering and Meat Byproduct Processing Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			SIP: Yes NSPS: Yes NESHAP: N/A PSD: N/A PSD Avoidance: Yes NC Toxics: N/A 112(r): Yes Other: Yes (Odors)
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	Application Number: 0900055.05A Date Received: 03/17/2005 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 07221/T11 Existing Permit Issue Date: 12/31/2001 Existing Permit Expiration Date: 02/28/2006
Jeff Musselwhite Environmental Engineer (910) 862-7675 P O Box 99 Tar Heel NC, 28392	Larry Johnson Vice President (910) 862-7675 P O Box 99 Tar Heel NC, 28392	Jeff Musselwhite Environmental Engineer (910) 862-7675 P O Box 99 Tar Heel NC, 28392	
Review Engineer: Fern Paterson Review Engineer's Signature: _____ Date: _____		Comments / Recommendations: Issue 07221/T12 Permit Issue Date: June 8, 2005 Permit Expiration Date: May 31, 2005	

I. Introduction:

The Smithfield Packing Company Inc. facility located in Tar Heel, Bladen County, North Carolina (Smithfield Packing) currently holds Title V Permit No. 07221T11 with an expiration date of February 28, 2006. The application to renew the existing Title V air quality permit (Application No. 0900055.05A) was received by the Division of Air Quality's Fayetteville Regional Office on March 17, 2005. This Title V permit renewal will be issued as Permit No. 07221T12.

The facility's initial Title V permit (07221T10) was issued on March 26, 2001. An administrative amendment to the permit (07221T11) was issued on December 31, 2001. In the permit amendment, language regarding visible emissions requirements was modified to improve permit clarity. In addition, the daily visible emissions monitoring requirement at the rendering plant was removed from the permit.

On July 25, 2005, the DAQ's Fayetteville Regional Office sent Smithfield Packing an Additional Information Request to provide toxics modeling for ammonia and chlorine, which are both regulated Toxic Air Pollutants (TAP) under 15A NCAC 2Q .0700 and 15A NCAC 2D .1100. Smithfield Packing provided the toxics modeling to the DAQ on October 10, 2005. Ms. Jamie Sellman of DAQ's Air Quality Analysis Branch subsequently reviewed and approved the modeling. Further information regarding applicability of the state-enforceable TAP rule is provided in Section VII. D. of this permit review.

II. Proposed changes in Application No. 0900055.05A:

The Permittee did not request any permit modifications as part of the original permit renewal application. However, while the permit application was being reviewed, the Permittee determined that quantities of ammonia were being lost to the atmosphere from the plant refrigeration system (**ID No. ES-37**). The Permittee subsequently submitted an air dispersion modeling analysis to demonstrate compliance with the acceptable ambient limits (AAL's) pursuant to 15A NCAC 2D .1100. An associated emission limit is being incorporated into the Title V operating permit. **TAP emission limits are state-enforceable, only.**

Also, per request of the Fayetteville Regional Office (FRO), source descriptions and identification numbers related to the wastewater treatment plant (**ID No. ES-BPS**) were also revised (Permit Section 1) to more accurately reflect the emission source/control device configurations, as follows:

- The wastewater treatment plant ID No. was changed from **ID No. BPS** to **ID No. ES-BPS**. The emission source was also listed specifically the first column of the emission source table on Page 6 of the permit.
- The identification number of the flare was changed from **ID No. ES-11** to **ID No. CD-11** to make it clear that the flare is a control device (versus a process unit). The reference to the flare in the emission source table is also moved from the first column to the third column, and associated with the wastewater treatment plant (**ID No. ES-BSP**).
- The biogas boilers (**ID Nos. ES-1 and ES-2**) are given *alternative* ID Nos., **CD-ES-1** and **CD-ES-2** and listed in the third column of the emission source table. Note that the emission source ID Nos. of the boilers (**ID Nos. ES-1 and ES-2**) are not changed or moved within the emission source table because these boilers serve as BOTH process units and control devices.

III. Changes to Existing Title V Air Permit No. 07221T11:

Old Page No.	New Page No.	Condition No.	Changes
Global Revision	Global Revision	Sec. 1, Table Sec. 2.1 A. Sec. 2.1 B. Sec. 2.1 C. Sec. 2.2 A. Sec. 2.2 B.	<ul style="list-style-type: none"> • Revise formatting of emissions source identification numbers to be consistent with conventions used in the annual emissions inventory, as follows: ID No. 1 → ES-1 ID No. 2 → ES-2 ID No. 3 → ES-3 ID No. 4 → ES-4 et. al. . . . • Add reference to the packed wet scrubber (ID No. C3) at the rendering plant building room air ventilation system (ID No. ES-14). • Add reference to the plant refrigeration system (ID No. ES-37). • Revise emission source ID Nos. for the wastewater treatment plant, flares, and associated biogas boilers as described in Section II of this permit review.
Page 1	Page 1	Front page	<ul style="list-style-type: none"> • Update permit information in table (i.e., permit no. replaced permit no., etc). • Change mailing address to Tar Heel location (from Smithfield, VA). • Update application information (i.e., application no, date, etc.).
Page 5 Page 8 Page 12 Page 12 Page 12	Page 5 Page 8 Page 12 Page 12 Page 13	Sec. 2.1, Table Sec. 2.1 B. 3. Sec. 2.2 A., Table Sec. 2.2 A.1 Sec. 2.2 A.2	Change references to 15A NCAC 2D .0530 (Prevention of Significant Deterioration) to 15A NCAC 2Q .0317 (Avoidance).
Page 5 Page 8	Page 6 Page 8	Sec. 2.1 A. 2. b. Sec. 2.1 B. 1. b.	Change references to 15A NCAC 2D .0501(c)(3) (PM testing) to 15A NCAC 2D. 0501(c)(4) (SO ₂ testing).

Old Page No.	New Page No.	Condition No.	Changes
Page 6	Page 6	Sec. 2.1 A. 3. d.	Remove language regarding the requirement to establish “normal” conditions for the boilers.
Page 6	Page 7	Sec. 2.1 A. 4. c.	Reword/reorganize condition for clarity.
Page 7	Page 7	Sec. 2.1 A. 4. d.	Reorganize condition for clarity.
Page 7	Page 7	Sec. 2.1 A. 4. e.	<ul style="list-style-type: none"> • Reword/reorganize condition for clarity. • Add requirement to include a list deviations during the reporting period in the semiannual summary report.
N/A	Page 9	Sec. 2.1 B. 3. b. (<i>new condition</i>)	Add testing requirement.
Page 8	Page 9	Sec. 2.1 B. 3. c. (<i>T12</i>)	Revise monitoring condition for clarity: <ul style="list-style-type: none"> • Move 1,105,000 gal/yr limitation to condition a. • Clarify the requirement to retain monthly records of total fuel usage. • Indicate that records should be retained on-site.
Page 8	N/A	Sec. 2.1 B. 3. c. (<i>T11</i>)	Remove requirement to retain records on-site due to repetitiveness with previous condition.
N/A	Page 12	Sec. 2.1 D. (<i>New Section</i>)	<i>State Requirement Only.</i> Add ammonia emission limit for the plant refrigeration system (ID No. ES-37).
Page 8 Page 12 Page 13	Page 9 Page 13 Page 13	Sec. 2.1 B. 3. d. (<i>T12</i>) Sec. 2.2 A. 1. e. Sec. 2.2 A. 2. e.	Change the reporting requirements to a semiannual period (6-month) instead of quarterly (3-month) for PSD Avoidance conditions.
Page 12	Page 13	Sec. 2.2 A. 1. b.	Change references to 15A NCAC 2D .0501(c)(3) (PM testing) to 15A NCAC 2D. 0501(c)(7) (NO _x testing).
Page 12	Page 13	Sec. 2.2 A. 1. d.	Revise monitoring condition for clarity: <ul style="list-style-type: none"> • Move language regarding 250 tpy NO_x limit to Sec. 2.2 A. 1. a. • Clarify the requirement to retain monthly records of total fuel usage and NO_x emissions.
Page 13	Page 13	Sec. 2.2 A. 1. d.	Revise monitoring condition for clarity: <ul style="list-style-type: none"> • Move language regarding 250 tpy SO₂ limit to Sec. 2.2 A. 2. a. • Clarify the requirement to retain monthly records of total fuel usage, sulfur content, and SO₂ emissions.
Page 14	N/A	Sec. 2.2 B. 1. f. (<i>T11</i>)	Remove requirement regarding the compliance statement. This requirement, pursuant to 15A NCAC 2D .0539(h), relates to the submission of a compliance schedule. Full compliance should already be achieved according to this schedule, and the requirement is no longer necessary in the permit.
Page 15	Page 15	Sec. 2.2 C. 1. a.	Remove redundant sentence in condition.
Page 15	Page 15	Sec. 2.2 C. 1. b. (<i>new condition</i>)	Add provision by which DAQ may request a determination of maximum feasible controls in accordance with 15A NCAC 2D .1806(f).
Pages 15-24	Pages 16-24	General Conditions	Added most current version of “General Conditions Section” to permit

IV. Facility Description:

SPC is a hog slaughter/pork processing and rendering facility.

V. Statement of Compliance:

The DAQ has reviewed the compliance status of this facility. On its latest inspection, conducted on March 9, 2005 by Mr. James Moser of the Fayetteville Regional Office (FRO), the facility was in compliance with all applicable requirements.

VI. Permitted Emissions Sources and Associated Air Pollution Control Devices:

The following table contains a summary of all permitted emission sources and associated air pollution control devices:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-3, ES-4, ES-5, ES-6, ES-7, ES-8 NSPS, Subpart Dc	Six (6) natural gas/No. 2/No. 4/ No. 5/No. 6 fuel oil-fired boilers (29.29 million Btu per hour heat input rate each)	NA	NA
ES-1, ES-2 NSPS, Subpart Dc	One (1) biogas/natural gas-fired boiler and one (1) biogas/natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired (29.29 million Btu per hour heat input rate each)	NA	NA
ES-BPS	Wastewater treatment plant/biogas production system	CD-11 -or- CD-ES-1 -or- CD-ES-2	One (1) biogas flare (40 million Btu per hour heat input rate) -or- One (1) biogas/natural gas-fired boiler (29.29 million Btu per hour heat input rate) -or- One (1) biogas/natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired (29.29 million Btu per hour heat input rate)
ES-9, ES-10, ES-15, ES-16	Four (4) natural gas-fired hair singers (16 million Btu per hour heat input rate each)	NA	NA
ES-17, ES-18, ES-19, ES-20, ES-21, ES-22, ES-23, ES-24 (South Bldg.)	Eight (8) No. 2 fuel oil-fired electric generators (14.74 million Btu per hour heat rate each)	NA	NA
ES-26, ES-27, ES-28, ES-29, ES-30, ES-31, ES-32, ES-33, ES-34, ES-35, ES-36 (North Bldg.)	Eleven (11) No. 2 fuel oil-fired electric generators (14.74 million Btu per hour heat rate each)	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-12a	Two (2) rendering cookers w/ primary entrainment traps (22,000 pounds of water per hour and 44,000 pounds of water per hour)	C1C C1V C1P	One (1) condensibles removal system (sized to condense a maximum of 88,000 pounds per hour of water vapor) consisting of one (1) shell and tube heat exchanger and/or two (2) air-cooled condensers in series with one (1) fixed throat venturi scrubber (pressure range of 12 to 40 pounds per square inch) utilizing process wastewater in series with one (1) packed tower wet scrubber (pressure range of 12 to 20 pounds per square inch) utilizing chlorine dioxide
ES-12b	One (1) rendering plant hair hydrolyzer	C1V C1P	One (1) fixed throat venturi scrubber (pressure range of 12 to 40 pounds per square inch) utilizing process wastewater in series with one (1) packed tower wet scrubber (pressure range of 12 to 20 pounds per square inch) utilizing chlorine dioxide
ES-12c	Low intensity odorous rendering plant operations including meal presses and grease centrifuges	C1V C1P	One (1) fixed throat venturi scrubber (pressure range of 12 to 40 pounds per square inch) utilizing process wastewater in series with one (1) packed tower wet scrubber (pressure range of 12 to 20 pounds per square inch) utilizing chlorine dioxide
ES-13	One (1) natural gas-fired ring blood dryer (7.5 million Btu per hour maximum heat input rate)	C2V C2P	One (1) fixed throat venturi scrubber (pressure range of 10 to 40 pounds per square inch) utilizing process wastewater in series with one (1) packed tower wet scrubber (pressure range of 7 to 20 pounds per square inch) utilizing chlorine dioxide
ES-14	Rendering plant room air ventilation system	C3	One (1) packed tower wet scrubber (pressure range of 10 to 20 pounds per square inch) utilizing chlorine dioxide
ES-37	Plant refrigeration system	NA	NA

VII. Emission Source-by-Source Evaluation:

The DAQ has reviewed the compliance status of this facility. On its latest inspection, conducted on March 9, 2005 by Mr. James Moser of the Fayetteville Regional Office (FRO), the facility was in compliance with all applicable requirements.

A. One (1) biogas/natural gas-fired boiler (ES-1/CD-ES-1), one (1) biogas/natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boiler (ES-2/CD-ES-2) and six (6) natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boilers (ES-3, ES-4, ES-5, ES-6, ES-7, ES-8)

1. Applicable Regulatory Requirements:

- 15A NCAC 2D .0503
- 15A NCAC 2D .0516

- 15A NCAC 2D .0521
- 15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)
- 15A NCAC 2Q .0317 (PSD Avoidance – NO_x & SO₂)*

* See Section XI of this permit review for additional discussion of PSD Avoidance requirements.

2. No regulatory review is required at this time because there are no new applicable regulations for these sources under this permit renewal.

B. Four (4) natural gas-fired hair singers (ES-9, ES-10, ES-15, ES-16), one (1) biogas flare (CD-11), and nineteen (19) No. 2 fuel oil-fired electric generators (South Building: ES-17, ES-18, ES-19, ES-20, ES-21, ES-22, ES-23, ES-24; North Building: ES-26, ES-27, ES-28, ES-29, ES-30, ES-31, ES-32, ES-33, ES-34, ES-35, ES-36)

1. Applicable Regulatory Requirements:

- 15A NCAC 2D .0516
- 15A NCAC 2D .0521
- 15A NCAC 2Q .0317 (PSD Avoidance – NO_x & SO₂)*

* See Section XI of this permit review for additional discussion of PSD Avoidance requirements.

2. No regulatory review is required at this time because there are no new applicable regulations for these sources under this permit renewal.

C. One (1) rendering plant operation (ES-12, ES-13, ES-14) consisting of:

- a) **Two (2) cookers with throughput capacities of 22,000 and 44,000 pounds of water per hour (ES-12a) with primary entrainment traps controlled by:**
 - i) **One (1) condensables removal system sized to condense a maximum of 88,000 pounds per hour of water vapor (C1C) consisting of one shell and tube heat exchanger and/or two air cooled condensers in series with**
 - ii) **One (1) fixed throat venturi scrubber with a pressure range of 12 to 40 pounds per square inch (C1V) utilizing process wastewater in series with**
 - iii) **One (1) packed tower wet scrubber with a pressure range of 12 to 20 pounds per square inch (C1P) utilizing chlorine dioxide.**
- b) **One (1) rendering plant hair hydrolyzer (ES-12b) controlled by the following:**
 - i) **One (1) fixed throat venturi scrubber with a pressure range of 12 to 40 pounds per square inch (C1V) utilizing process wastewater in series with**
 - ii) **One (1) packed tower wet scrubber with a pressure range of 12 to 20 pounds per square inch (C1P) utilizing chlorine dioxide.**
- c) **Low intensity odorous rendering plant operations including meal presses and grease centrifuges (ES-12c) controlled by the following:**
 - i) **One (1) fixed throat venturi scrubber with a pressure range of 12 to 40 pounds per square inch (C1V) utilizing process wastewater in series with**
 - ii) **One (1) packed tower wet scrubber with a pressure range of 12 to 20 pounds per square inch (C1P) utilizing chlorine dioxide.**
- d) **One (1) natural gas-fired ring blood dryer (ES-13) controlled by the following:**
 - i) **One (1) fixed throat venturi scrubber with a pressure range of 10 to 40 pounds per square inch (C2V) utilizing process wastewater in series with**
 - ii) **One (1) packed tower wet scrubber with a pressure range of 7 to 20 pounds per square inch (C2P) utilizing chlorine dioxide.**
- e) **Rendering plant building room air ventilation system (ES-14) controlled by one packed tower wet scrubber with a pressure range of 10 to 40 pounds per square inch (C3) utilizing chlorine dioxide.**

1. Applicable Regulatory Requirements:

- 15A NCAC 2D .0515

- 15A NCAC 2D .0516
- 15A NCAC 2D .0521
- 15A NCAC 2D .0529 (*State enforceable only*)
- 15A NCAC 2Q .0317 (*PSD Avoidance – NO_x & SO₂*)*

* See Section XI of this permit review for additional discussion of PSD Avoidance requirements.

2. No regulatory review is required at this time because there are no new applicable regulations for these sources under this permit renewal.

D. One (1) plant refrigeration system (ES-37)

1. Applicable Regulatory Requirements:
 - 15A NCAC 2D .1100 – *State Enforceable Only*
2. STATE-ONLY REQUIREMENT – TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT
 During the review of the Title V permit renewal application, the Permittee determined that quantities of ammonia were being lost to the atmosphere from the plant refrigeration system (**ID No. ES-37**). Quantities of ammonia lost are approximately 20,000 pounds per year (lb/yr) and are potentially above the TPERs provided in 15A NCAC 2Q .0711. The Permittee subsequently submitted an air dispersion modeling analysis to DAQ to demonstrate compliance with the acceptable ambient limit (AAL) for ammonia pursuant to 15A NCAC 2D .1100 and to incorporate an emission limit. The air dispersion modeling was reviewed and approved by Ms. Jamie Sellman of the Air Quality Analysis Branch on October 19, 2005.

The modeled ammonia emission rate has been incorporated into the Title V operating permit in accordance with 15A NCAC 2D .1100, as provided below:

- a. Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

EMISSION SOURCE	TAP	EMISSION LIMIT(S)*
Plant refrigeration system (ES-37)	Ammonia	6.8 lb/hr

* Ammonia is identified in 15A NCAC 2Q .0711 as an acute irritant. Compliance with the emission limit listed above shall be based on a 1-hour averaging period.

- b. To ensure compliance with the toxic air pollutant emission limit listed above, the total quantity ammonia purchased by the facility (to make-up for inventory lost) shall not exceed 59,560 pounds for any consecutive 12-month period (lbs/12-months). The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1100 if the purchased quantity exceeds the limit listed above.
- c. The Permittee shall maintain ammonia purchasing records to demonstrate compliance with the emissions and purchasing limits provided above. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1100 if these records are not retained.

NOTE: The chlorine dioxide generation system also has the potential to emit chlorine at a rate greater than the TAP permitting emission rate (TPER). However, the system was constructed prior to September 30, 1993 and has not been modified (pursuant to 15A NCAC 2Q .0704) or affected by any applicable MACT or GACT standard (pursuant to 15A NCAC 2Q .0705). Therefore, the chlorine dioxide generation system is not currently affected by the state-enforceable TAP rule.

VIII. Multiple Emission Source Limits:

A. One (1) biogas/natural gas-fired boiler (ES-1/CD-ES-1), one (1) biogas/natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boiler (ES-2/CD-ES-2), six (6) natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boilers (ES-3, ES-4, ES-5, ES-6, ES-7, ES-8), four (4) natural gas-fired hog singers (ES-9, ES-10, ES-15 and ES-16), one (1) biogas flare (CD-11), eight (8) No. 2 fuel oil-fired electric generators (South Building: ES-17, ES-18, ES-19, ES-20, ES-21, ES-22, ES-23, ES-24), and one (1) natural gas-fired ring blood dryer (ES-13)

1. Applicable Regulatory Requirements:

- 15A NCAC 2Q .0317 (*PSD Avoidance – NO_x & SO₂*)*

* See Section XI of this permit review for additional discussion of PSD Avoidance requirements.

2. No regulatory review is required at this time because there are no new applicable regulations for these sources under this permit renewal.

B. One (1) rendering plant operation (ID Nos. ES-12, ES-13, ES-14)

1. Applicable Regulatory Requirements:

- NCAC 2D .0539 (*State-Only Requirement*)

2. No regulatory review is required at this time because there are no new applicable regulations for these sources under this permit renewal.

C. All Emission Sources

1. Applicable Regulatory Requirements:

- NCAC 2D .1806 (*State-Only Requirement*)
- 15A NCAC 2Q .0508(g) [*Prevention of Accidental Releases – 112(r)*]

2. No regulatory review is required at this time because there are no new applicable regulations for these sources under this permit renewal.

IX. Compliance Assurance Monitoring:

This facility has several Pollutant-Specific Emissions Units (PSEUs) with add-on pollution controls. None of the PSEUs are subject to CAM, as provided below:

Two cookers (ID No. ES-12a) are controlled by a condensables removal system (ID No. C1C), a venturi scrubber (ID No. C1V), and a packed bed scrubber (ID No. C1P) orientated in series. Exhaust from the cookers may include both VOC and PM₁₀ emissions. However, the purpose of control is primarily to reduce odors.

- VOC Emissions. CAM does not apply because there are no VOC emissions limitations or standards applicable to the cookers.
- PM₁₀ Emissions. There are no PM₁₀ emissions limitations or standards applicable to the cookers. There is an applicable PM limitation pursuant to 15A NCAC 2D .0515 (Process Weight Rate). However, the cookers could comply with limitation without add-on control. Therefore, CAM does not apply.

A hair hydrolyzer (ID No. ES-12b) and low-intensity rendering plant operations (ID No. ES-12c) are controlled by a venturi scrubber (ID No. C1V) and a packed bed scrubber (ID No. C1P) orientated in series. Exhaust from these operations may include both VOC and PM₁₀ emissions. However, the purpose of control is primarily to reduce odors.

- VOC Emissions. CAM does not apply because there are no VOC emissions limitations or standards applicable to these operations.
- PM₁₀ Emissions. There are no PM₁₀ emissions limitations or standards applicable to these operations. There is an applicable PM limitation pursuant to 15A NCAC 2D .0515 (Particulates From Misc. Industrial Sources).

However, the operations could comply with the limitation without add-on control. Therefore, CAM does not apply.

One blood dryer (**ID No. ES-13**) is controlled by a venturi scrubber (**ID No. C2V**) and a packed bed scrubber (**ID No. C2P**) orientated in series. Exhaust from the cookers may include VOC, PM₁₀, SO₂, NO_x, and CO emissions. However, the purpose of control is primarily to reduce odors.

- VOC Emissions. CAM does not apply because there are no VOC emissions limitations or standards applicable to the blood dryer.
- PM₁₀ Emissions. There are no PM₁₀ emissions limitations or standards applicable to the blood dryer. There is an applicable PM limitation pursuant to 15A NCAC 2D .0515 (Particulates From Misc. Industrial Sources). However, the blood dryer could comply with the limitation without add-on control. Therefore, CAM does not apply.
- SO₂ Emissions. There is an applicable SO₂ limitation pursuant to 15A NCAC 2D .0515 (SO₂ Emissions from Combustion Sources). However, the add-on control does not reduce SO₂ emissions. Therefore, CAM does not apply.
- NO_x Emissions. NO_x emissions from the blood dryer are regulated under 15A NCAC 2Q .0317 (PSD Avoidance). However, the add-on control does not reduce NO_x emissions. Therefore, CAM does not apply.
- CO Emissions. CAM does not apply because there are no CO emissions limitations or standards applicable to the blood dryer.

*Note: The biogas from the Wastewater Treatment Plant (**ID No. ES-BPS**), primarily composed of methane, is captured and either fired in boilers with biogas-firing capabilities (**ID Nos. CD-ES-1 and CD-ES-2**) or routed to the biogas flare (**ID No. CD-11**). The purpose of control is the mitigate odors. Biogas emissions are not subject to any specific emission limitation or standard. Therefore CAM does not apply to the wastewater treatment plant.

X. MACT Applicability and Requirements:

Potential hazardous air pollutant (HAP) emissions from this facility are less than 25 tpy for combined HAP and less than 10 tpy from all individual HAPs. Based on the facility's current operations and emission sources, the facility is not subject to any promulgated MACT standards.

XI. Prevention of Significant Deterioration (PSD):

This facility is a major PSD source because potential facility-wide NO_x emissions are greater than 250 tpy. The facility has NO_x and SO₂ emissions limitations pursuant to 15 NCAC 2Q .0317 (Avoidance), as follows:

- Emissions Sources: **ID Nos. ES-1 to ES-11, ES-13, ES-15 to ES-24**
Limitation: Total NO_x emissions not to exceed 250 tpy on any 12-month rolling basis.
Location in Permit: Part I, Section 2.2, A.1
- Emissions Sources: **ID Nos. ES-1 to ES-11, ES-13, ES-15 to ES-24**
Limitation: Total SO₂ emissions not to exceed 250 tpy on any 12-month rolling basis.
Location in Permit: Part I, Section 2.2, A.2
- Emissions Sources: **ID Nos. ES-26 – ES-36**
Limitation: Total NO_x emissions not to exceed 250 tpy on any 12-month rolling basis. Total No. 2 fuel oil combustion shall be limited to 1,105,000 gal/yr to maintain NO_x emissions below the 250 tpy limitation.
Location in Permit: Part I, Section 2.1, B.3

In the permit renewal, the reporting requirements associated with the PSD avoidance limitations was reduced from quarterly (3-month) to semiannual (6-month). The required reporting frequency was reduced based on historical actual emissions of both NO_x and SO₂ falling well below the PSD avoidance limitations.

XII. Other Regulatory Considerations:

- A consistency determination **is not required** for this renewal application.
- A thirty-day public notice **is required** for this renewal application.
- A Professional Engineers Seal **is not required** for this renewal application.

- An application-processing fee **is not required** for this renewal.

XIII. Recommendations:

This Title V Permit Renewal for the Smithfield Packing Company Inc. facility in Tar Heel, Bladen County, North Carolina has been reviewed by the DAQ to determine compliance with all procedures and requirements. The DAQ has determined that this facility is complying or will achieve compliance as specified in the permit with all applicable requirements.

Issue Air Quality Permit No. 07221T12 to Smithfield Packing Company, Inc.