

BEFORE THE NORTH CAROLINA  
ENVIRONMENTAL MANAGEMENT COMMISSION

STATE OF NORTH CAROLINA	)	
	)	
COUNTY OF BLADEN	)	
	)	
IN THE MATTER OF:	)	SPECIAL ORDER BY CONSENT
OPTIMA TH, LLC	)	
	)	SOC 2023-_____
	)	
TAR HEEL, BLADEN COUNTY	)	
NORTH CAROLINA	)	
[SITE NUMBER 0900096]	)	

This SPECIAL ORDER BY CONSENT (hereinafter referred to as the “ORDER”) is made and entered into pursuant to North Carolina General Statute 143-215.110 by and between OPTIMA TH, LLC (hereafter referred to as the “COMPANY”) and the ENVIRONMENTAL MANAGEMENT COMMISSION, an agency of the State of North Carolina (hereinafter referred to as the “COMMISSION”).

WITNESSETH:

- I. The COMMISSION and the COMPANY do hereby stipulate and agree to the following:
- A. The COMPANY operates a renewable natural gas production facility (hereafter referred to as the “FACILITY”) located at 15855 NC-87 Tar Heel, Bladen County, North Carolina. The FACILITY currently operates under Air Quality Permit No. 10673R00, issued on May 4, 2021.
  - B. The “affected source” is identified in the FACILITY’s air quality permit as one biogas / tail gas / product gas / propane / natural gas-fired non-assisted candlestick flare control device (“FLARE”) (ID No. CD-1), which is permitted to control emissions from one gas upgrading system. The gas stream presented at the FLARE has the potential to emit toxic air pollutants (“TAP”), such as hydrogen sulfide (“H2S”) and criteria air pollutants including carbon monoxide (“CO”), nitrogen oxides (“NOx”), volatile organic compounds (“VOC”), and sulfur dioxide (“SO2”).
  - C. The FACILITY is subject to 15A NCAC 02D .0516 which limits SO2 emissions from the FLARE to no more than 2.3 pounds per million BTU input.

- D. The FACILITY is also subject to 15A NCAC 02D .1100 which limits H<sub>2</sub>S emissions from the FLARE to 9.96 pounds per day by incorporation of this limitation into the FACILITY's air quality permit.
- E. The FACILITY's purpose is to produce renewable natural gas for injection into a common carrier pipeline by capturing, cleaning and recycling for beneficial reuse an existing biogas stream generated at an existing Title V permitted facility, Smithfield Fresh Meats Corporation – Tar Heel (Facility ID No. 0900055), which was previously being flared. By recycling the methane via capture and injection into a common carrier pipeline, the FACILITY removes approximately 90% of the heat content present in the biogas gas stream. The resulting low heat content in the gas stream makes achievement of 15A NCAC 02D .0516 impossible without either the purchase and combustion of supplemental fuel for use in the FLARE or removal of H<sub>2</sub>S prior to flaring.
- F. The FACILITY has attempted to meet its compliance obligation with regards to 15A NCAC 02D .0516 by purchasing and combusting supplemental fuel. The COMPANY represents that this operating method was based on the initial engineering of the FACILITY which relied on the historic H<sub>2</sub>S concentrations present in the biogas stream from Smithfield Fresh Meats Corporation - Tar Heel as previously reported to the COMPANY.
- G. The COMPANY has determined that the FACILITY cannot comply with 15A NCAC 02D .0516 and the current permit limit for H<sub>2</sub>S emissions pursuant to 15A NCAC 02D .1100 without installing H<sub>2</sub>S removal equipment.
- H. On March 2, 2022, DAQ issued the COMPANY a Notice of Violation (NOV) for SO<sub>2</sub> emissions from the FLARE exceeding the 15A NCAC 02D .0516 limit of 2.3 pounds/million Btu heat input on multiple days between May 2021 to June 2021.
- I. On March 10, 2023, DAQ issued the COMPANY a Notice of Violation / Notice of Recommendation of Enforcement (NOV/NRE) for SO<sub>2</sub> emissions from the FLARE exceeding the 15A NCAC 02D .0516 limit of 2.3 pounds/million Btu heat input on multiple days during the period of July 2021 and June 2022 and for H<sub>2</sub>S emissions from the FLARE exceeding the permit limit for H<sub>2</sub>S of 9.96 pounds per day established pursuant to 15A NCAC 02D .1100 on one day during the period of July 2021 and December 2021.

- J. The COMPANY seeks to resolve the above cited violations and ensure future compliance with 15A NCAC 02D .0516 and 15A NCAC 02D .1100 by installing H2S removal equipment that will drastically reduce SO2 and H2S emissions from its FLARE.
- K. DAQ has determined that, due to the COMPANY's commitment to installing and operating equipment to reduce H2S and SO2 emissions and further reduce overall air emissions in the area, this ORDER is a necessary, appropriate, and environmental beneficial mechanism to ensure the COMPANY returns the FACILITY to compliance with the emissions limits.

THEREFORE, the COMMISSION and the COMPANY, desiring to resolve and settle the compliance issues between them, have agreed to enter into this ORDER with the following terms and conditions:

- II. The COMPANY, desiring to operate in a safe and more environmentally sound manner during the period of this ORDER and thereafter in accordance with the rules and regulations of the COMMISSION does hereby agree to the following conditions:
  - A. The COMPANY may operate the FLARE at the FACILITY during the period of this ORDER provided that facility wide SO2 emissions remain less than 250 tons per twelve-month period.
  - B. Within five (5) days of the end of each month, the COMPANY will calculate the total SO2 emissions from the FACILITY for the previous month and the twelve-month rolling total SO2 emissions for the previous month combined with the preceding eleven months.
  - C. If the FACILITY exceeds 250 tons SO2 per year for any twelve-month period during the period of this order, the COMPANY will notify DAQ within ten (10) days of discovery.
  - D. By July 30<sup>th</sup> and January 30<sup>th</sup> each year, the COMPANY will submit an SO2 emissions report to DAQ summarizing the monthly SO2 emissions for the previous six-month period (i.e., January to June and July to December) and the twelve-month total SO2 emissions calculated for each month of the reporting period.

- E. Within ninety (90) days following execution of this ORDER, the COMPANY will submit a complete permit application to allow for the construction and operation of H2S removal equipment at the FACILITY.
- F. The COMPANY will use best commercial efforts to install and commence operation of equipment to substantially reduce, or remove, H2S from the biogas stream feeding the gas upgrading system (ID No. ES-1) within nine (9) months, and in no event to exceed twelve (12) months, of issuance of a permit by DAQ authorizing the construction and operation of the new H2S removal equipment.
- G. Within thirty (30) days of starting up the new H2S removal equipment at the FACILITY, the COMPANY will achieve compliance with all permit limitations related to 15A NCAC 02D .0516 and 15A NCAC 02D .1100
- H. Within forty-five (45) days of starting up the new H2S removal equipment at the FACILITY, the COMPANY will submit a written report to DAQ indicating the start-up date of the new H2S removal equipment and the date on which the FACILITY returned to compliance with all conditions of its air quality permit. Along with this compliance report, the COMPANY will submit the final SO2 emissions report required by Paragraph II. D. of this ORDER.

III. The COMPANY shall pay the following penalties:

- A. The COMPANY agrees to pay DAQ a civil penalty in the amount of \$16,200. This amount shall be paid in three installments of \$5,400 due thirty (30), sixty (60), and ninety (90) days after the effective date of this ORDER.
- B. The COMPANY agrees to pay DAQ stipulated penalties in the amounts of \$3,000 per month starting nine (9) months after issuance of a permit by DAQ authorizing the construction and operation of the new H2S removal equipment and ending upon submittal of the final compliance report by the COMPANY in accordance with Paragraph II.H. The stipulated penalties shall be paid by no later than thirty (30) days after the COMPANY submits of the final compliance report required by Paragraph II.H. Partial months consisting of fifteen (15) or more days shall count as whole months in determining the stipulated penalty amounts to be paid.

- C. In the event that the COMPANY fails to comply with any deadline as set out in this ORDER or fails to achieve final compliance with any applicable requirement in this ORDER, the COMPANY agrees that, unless excused under Paragraph IV, the COMPANY will pay stipulated penalties according to the following schedule:

<u>Deadlines and Requirements</u>	<u>Stipulated Penalties</u>
Failure to comply with any requirement or deadline in Paragraph II	\$500 per day for the first 5 days and \$1000 per day thereafter.

The COMPANY shall notify DAQ in writing of any violation of Paragraph II of this ORDER within ten (10) days of discovering such violation. Failure to pay the civil penalties within thirty (30) days of receipt of the Director's written demand will be grounds for a collection action, which the Attorney General is hereby authorized to initiate. The only issue in such an action will be whether thirty (30) days has lapsed.

- IV. The COMPANY's obligation to comply with the requirements set forth in this ORDER for which a stipulated penalty may be assessed, may be delayed or excused only to the extent that noncompliance is caused by circumstances beyond control of the COMPANY, as determined by the DAQ Director. Contractor delays or failure to obtain funding will not be considered events beyond the COMPANY's control. If any such delaying event occurs, the COMPANY shall notify DAQ in writing within ten (10) days of encountering or discovering the delaying event, describing in detail the event or delay, the precise cause(s) of the event or delay, the measure(s) taken and to be taken by the COMPANY to prevent or minimize the event or delay, and the schedule by which those measures will be implemented.
- V. In addition to the stipulated penalties set forth in Paragraph III, in the event the COMPANY violates this ORDER, the COMPANY may be subject to an injunction action pursuant to N.C.G.S. § 143-215.114C for relief necessary to prevent or abate the violations described in Paragraph I. Except as authorized pursuant to this Paragraph and Paragraph III, the COMPANY shall not be issued any further Notices of Violation or be subject to enforcement action for the violations specified in Paragraph I. Any other violations for which the COMPANY is responsible, shall subject the COMPANY to appropriate

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enforcement action pursuant to N.C.G.S. §§ 143-215.114A, 143-215.114B and 143-215.114C.

- VI. The COMPANY agrees to waive any rights it may have to seek judicial review to challenge this ORDER.
- VII. All notices and reports required by this ORDER shall be delivered to:

Regional Air Quality Supervisor  
N.C. Dept. of Environmental Quality  
225 Green Street, Suite 714  
Fayetteville, North Carolina 28301-5095

All payments required from the COMPANY by this ORDER shall be delivered to:

Enforcement Group – Payments  
NCDEQ – DAQ  
1641 Mail Service Center  
Raleigh, North Carolina 27699-1641

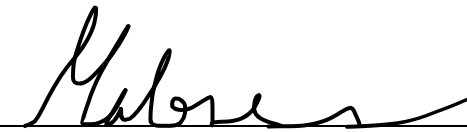
- VIII. Final approval and entry into this ORDER are subject to the requirements that the COMMISSION give notice of proposed special orders to the public, and that the public have at least thirty (30) days within which to comment on the ORDER.
- IX. Should any provision of this ORDER be declared by a court of competent jurisdiction to be inconsistent with Federal or State law and therefore unenforceable, the remaining provisions hereof shall remain in full force and effect.
- X. The Parties may jointly stipulate and agree to modify this ORDER at any time subject to the requirements of 15A NCAC 02D .2203. Any modifications of this ORDER must be agreed to in writing signed by both parties.
- XI. Except as otherwise set forth herein, this ORDER is not and shall not be interpreted to be a permit or modification of an existing permit under Federal, State or local law, and shall not be construed to waive or relieve the COMPANY of its obligations to comply in the future with any permit, including but not limited to, all testing, monitoring, recordkeeping, and reporting requirements related to SO<sub>2</sub> and H<sub>2</sub>S emission calculations.

- XII. This ORDER is effective on execution by the COMMISSION and shall expire upon DAQ's written acknowledgement of receipt of the final compliance report and the final SO<sub>2</sub> emission report submitted by the COMPANY in accordance with Paragraph II.H. and payment of all stipulated penalties required by Paragraph III.B., or on February 1, 2025, whichever comes first.

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ATTESTED:

OPTIMA TH, LLC.

BY:   
OptimaBio, LLC, its Manager  
Mark Maloney, Manager

DATE: 4/28/23

APPROVED AND ACCEPTED:

BY: \_\_\_\_\_  
For the Environmental Management Commission

DATE: \_\_\_\_\_