

January 4, 2021

**VIA ELECTRONIC DELIVERY**

Brad Newland  
Wilmington Regional Supervisor  
NCDEQ Division of Air Quality  
127 Cardinal Drive Extension  
Wilmington, North Carolina 28405

Re: Response to December 16, 2020 Additional Information Request  
Align RNG, LLC – BF Grady Road  
Facility ID# 3100179  
Permit No. 10644

Dear Mr. Newland:

This letter is in response to the Additional Information Request (“AIR”) sent to Align Renewable Natural Gas (“Align RNG”) by the NCDEQ Division of Air Quality on December 16, 2020. On behalf of Align RNG, let me again thank you and your colleagues for your extensive work on this application, which was submitted on December 10, 2019.

With this response, Align RNG is hopeful that the application process is reaching a conclusion. This has been a protracted process, as shown by the timeline below. We then follow with Align RNG’s responses to the latest specific requests for additional information.

**Application Timeline**

- **December 10, 2019:** Align RNG submitted the initial application.
- **January 17, 2020:** DEQ requested additional information and a revised application.
- **February 26, 2020:** Align RNG submitted the revised application with additional information as requested. This triggered the 90-day regulatory clock for DEQ to take final action on the permit, absent certain enumerated actions that can extend the deadline.
- **May 16, 2020:** The Director exercised his discretion<sup>1</sup> to send the draft permit to public notice with written public comments due June 16, 2020. This action gave the public the opportunity to present their views on the permit directly to the agency, and it tolled the deadline for final action until the comments were received.
- **July 2 and July 13, 2020:** DEQ issued Align RNG two more AIRs and stated that it had again placed the agency’s regulatory deadline to take final action “on hold.”<sup>2</sup> Align RNG notes that the

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<sup>1</sup> Neither public comment nor a public hearing are required for this type of permit unless the Director so chooses. 15 NCAC 02Q .0306(a); 15 NCAC 02Q .0307(e).

<sup>2</sup> The July 13 AIR noted that the application would be considered “incomplete” if Align RNG did not respond by August 12, 2020. Align RNG notes that DEQ had already determined the application complete, as evidenced by DEQ’s decision to issue a draft permit and draft technical analysis for public comment. See 15 NCAC 02Q .0312(a)(1)(E) (Director to “send the draft permit to public notice within 90 days *after receipt of a complete application*”) (emphasis added).

regulations do not authorize DEQ to suspend the deadline once a permit has gone to public notice. See 15 NCAC 02Q .0312(a) (1)(D)-(F) (extending deadline to take final action due to AIR only when draft permit "is not required to go to public notice or to public hearing").

Align RNG responded to these AIRs promptly and fully on July 24, 2020 and July 27, 2020, respectively, and DEQ made changes to the draft permit in response to public comments.

- **September 16, 2020:** DEQ issued another public notice scheduling a public hearing for October 20, 2020. It also re-opened the public comment period until October 22, 2020. DEQ subsequently postponed the hearing to November 16, 2020 and extended the public comment period to November 20, 2020. Nearly all the opposing November public comments repeated the same concerns that had been presented during the June 2020 comment period.
- **December 8, 2020:** DEQ issued a fourth AIR. DEQ again asserted that the "application process time clock will be put on hold during this time for you to respond." Align RNG notes again that the regulations do not provide for suspension of the deadline to take final action under these circumstances. Per the regulations, the permit decision must be made within 30 days of the public hearing. See 15 NCAC 02Q .0312(a)(1)(F) ("If the draft permit is required to go to public hearing..., the Director shall ... complete the review of the record and take final action on the permit within 30 days after the close of the public hearing.").
- **December 16, 2020:** DEQ issued its fifth AIR, once again asserting that the "application process time clock will be put on hold during this time for you to respond to this request."

#### Responses to Specific Requests

1. ***Please provide additional detail on the general locations of the animal operations that may supply bio-gas to the Align RNG, LLC - BF Grady Road project.***

Response: As noted in prior responses to AIRs, the information requested is beyond the scope of Air Quality Permit Application No. 3100179.19A. This permit is for the infrastructure necessary to convert biogas into RNG at the BF Grady Road facility. The facility is being sized and permitted to receive raw biogas from numerous, to-be-determined farms scattered throughout Duplin and Sampson Counties. Align RNG currently does not know whether and which farms will ultimately decide to participate.

Notwithstanding the above and in addition to prior information submitted to DEQ, Align RNG states that any farm within approximately 11 miles of the BF Grady Road facility that has at least 3000 average head, can be accessed with gathering lines, and utilizes a lagoon-and-spray manure management system could potentially participate as a supplier of biogas to the facility. No such farms meeting that criteria (or any hog farm) are located within one mile of the facility. See Figure 1, Response to December 8, 2020 AIR (aerial showing no hog farms within 1 mile of BF Grady Road GUS).

2. ***Please provide further details on emissions differentials that may result from installing digesters and/or lagoon covers.***

Response: As documented in prior submittals, the farms and the BF Grady Road facility cannot be considered a single source; therefore, the requested information relating to the farms is outside the scope of the air permit for the BF Grady Road facility.

Notwithstanding the scope of the request, Align RNG provides the following. Capturing the farms' biogases should decrease overall local emissions, and the addition of engineered anaerobic digesters will be environmentally beneficial at farms that choose to participate:

- Engineered anaerobic digesters should reduce the potential for odors within each of the barn, lagoon, and field operations by
  - controlling volatile fatty acids (VFA) and other degraded odorants,
  - enabling sequestration/oxidization of hydrogen sulfide and other gaseous sulfides,
  - enhancing infiltration to soils from reduced solids loading and viscosity, and
  - reducing loading to secondary storage lagoons with more stabilized return flush water.
- There will be a significant positive impact on greenhouse gases by capturing and utilizing methane, that otherwise would be released, and offsetting emissions by displacing traditional fossil fuel.
- Hydrogen sulfide emissions are expected to be significantly reduced due to a significant portion of gaseous sulfides being captured, then sequestered and/or oxidized.
- Net ammonia emissions from the farms are not expected to increase. Digestate properties reduce the potential for ammonia fluxes during storage and field application, which counterbalances the potential for moderately higher concentrations of ammonia-N and greater ammonia-N to total -N ratios.
- Existing anaerobic storage/treatment lagoons can be shifted to secondary storage/treatment—gaining additional treatment volume/time as well as delivering a lower organic load to the secondary lagoon.
- Engineered digesters improve the destruction of pathogens and the degradation or deactivation of chemicals, thus reducing their potential loss and impact to waterways.
- Adding anaerobic digesters with synthetic liners will not increase nitrogen or nitrate losses to waterways, especially with implementation of Best Management Practices (BMPs) and appropriate agronomic application practices.
- Eutrophication will not increase with engineered anaerobic digesters. In addition to the nitrogen effects noted above, the new systems should significantly improve the destruction of biological oxygen demand (BOD). Phosphorous will be preferentially incorporated in settled sludges, and their transport-friendly solids content and nutrient density should be equal to or slightly improve loading control of phosphorous to soils.

In short, adding engineered anaerobic digesters will generate whole farm environmental benefits to air, water, climate, and local health.

See also Align RNG Comments to Draft Air Permit No. 10644R00 (June 16, 2020), Attach. B (C. Frear, *Environmental Impacts of Adding Anaerobic Digesters to Existing Swine Manure Management Systems* (Regenis, 2020)).

In closing, we reiterate our gratitude for your agency's work on this application. We trust that this response, in conjunction with all the prior information submitted by Align RNG and the public, will enable the agency to make a prompt decision to issue Permit No. 10644.

With kind regards,

A handwritten signature in black ink, appearing to read "Kraig Westerbeek". The signature is fluid and cursive, with a large initial "K" and "W".

Kraig Westerbeek  
Align Renewable Natural Gas, LLC