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July 6, 2023
Project No. 220602

Scott Miller
Jackson District Office
Air Quality Division
Michigan Department of Environment, Great Lakes, and Energy
State Office Building, 4th Floor
301 East Louis Glick Highway
Jackson, MI 49201-1535

Response to the Letter Dated June 22, 2023
Crimson Holdings (SRN E8117)
Adrian, Michigan

Dear Scott:

On June 22, 2023, EGLE-AQD issued a Violation Notice (VN) to Crimson Holdings, LLC (Crimson) alleging a violation of Rule 901(b) on June 14, 2023. The specific allegations cited in the VN are as follows:

Process Description	Rule/Permit Condition Violated	Comments
Powdered Egg Manufacturing Facility	R 336.1901(b)	On June 14, 2023, AQD staff followed up on ongoing complaints that were received concerning odors coming from this facility. AQD staff verified that these odors were in violation of Rule 901(b).

As requested, this letter provides information regarding the referenced citation, including: the date the alleged violation occurred; an explanation of the cause(s) and duration of the alleged violation; whether the violation is ongoing; a summary of the action(s) that have been taken and are proposed to be taken to correct the violation; the date(s) by which these action(s) will take place; and what steps are being taken to prevent a reoccurrence.

Activities at the Plant

The plant is required by the Lenawee County Court Order to only operate a limited schedule of operation and only allowed to process eggs between 7 p.m. and 7 a.m. Crimson Holdings has cancelled several orders and disposed of liquid eggs, to avoid receiving eggs at the plant that cannot be processed during a reasonable amount of time due to their limited operation schedule.

The stack height associated with exhaust from the DAF room has been raised to above the roof. In addition, we have been using the rental nanobubbles system and it seems to be effective in mitigating odors from the WWTP area. Crimson has ordered the permanent Kadence NanoO2 system as of June 28, 2023, and expects delivery and installation of that system within the next 10-12 weeks. While Crimson has not accumulated much detailed odor investigation data, it is our opinion that the nanobubbles system, with some work practices that have been instituted including removing sludge more frequently, have effectively mitigated odors from the WWTP, and no additional changes are planned for that area. The nanobubbles are referenced in the revised Nuisance Odor Minimization Plan (NOMP) and Crimson plans on monitoring the oxygen-reduction potential on a continuous basis when the permanent system is installed. The Design Basis Report you requested for the WWTP has been submitted.

Crimson has also continued to work with Marriott Walker and requested an analysis of options to increase the stack velocity in the existing stack. The design and proper operation of the dryer is sensitive to back-pressure and airflow, making it difficult to add additional fans. Marriott Walker has recommended modifying the existing stack, replacing the 38-inch taper with a new 36-inch taper, designed to promote increased velocity. This modification would increase the velocity from the current 60 fps to a calculated 70 fps. Crimson is working with Marriott Walker to define the scope of this work and a timeline to complete.

Additional Planned Mitigation Activities

As we had previously indicated, the permanent solution would be installation of the new packed-bed scrubber, which is proceeding according to the schedule. It should be noted that we have made progress in the engineering and procurement activities needed to install the new packed-bed scrubber this fall.

We are proposing the following interim measures to mitigate odors until the new air pollution control equipment is installed and operating.

- Crimson has tested a new odor neutralizer from Pathosans. It was included in the recent permit to install application. It has no fragrances associated with it, unlike the previous masking agent from Chemtreat OC9118. We have only been able to procure small amounts of the odor neutralizer from Pathosans, but it appears to mitigate the odors without any additional masking fragrance.
- Equipment that produces the Pathosans neutralizer was ordered on June 20, 2023. Although we are diligently working towards the installation of this equipment, Pathosans has a 3–4-week lead time of delivery. Fortunately, installation of the system is relatively straight forward and easy, requiring no special utilities or piping and can be installed in a single day.
- Crimson is also altering how it processes the liquid eggs to reduce storage time at the plant. The fresher the product is, the less likely it is to cause odors. We find that product that is stored less than 96 hours has a much lower odor creation. Crimson is working with its scheduling group regarding how loads are scheduled to the site and would accommodate late trucks and other schedule upsets while reducing storage time prior to processing.
- The eggs processed on June 14 were older than we would normally process, which greatly contributed to the odors that EGLE witnessed on that day.

If you have any questions, please contact me at dhofbauer@crimsonhldg.com (517.208.0904) or our environmental consultant, Lillian Woolley, of Fishbeck, at llwoolley@fishbeck.com (586.489.6876).

Sincerely,



Dan Hofbauer
Plant Manager

By email

Copy: Andrew Drury – EGLE-AQD
Chris Ethridge – EGLE-AQD
Malcolm Mead O'Brien – EGLE-AQD
Brad Myott – EGLE-AQD
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