

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

E811766725

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| FACILITY: Crimson Holdings, LLC | SRN / ID: E8117 |
| LOCATION: 1336 E MAUMEE ST, ADRIAN | DISTRICT: Jackson |
| CITY: ADRIAN | COUNTY: LENAWEЕ |
| CONTACT: Dan Hofbauer , Plant Manager 2022 | ACTIVITY DATE: 03/22/2023 |
| STAFF: Stephanie Weems | COMPLIANCE STATUS: |
| SUBJECT: Scheduled inspection for FY23 | SOURCE CLASS: MINOR |
| RESOLVED COMPLAINTS: C-23-00859, C-23-00860, C-23-00861, C-23-00862, C-23-00863, C-23-00864, C-23-00865, C-23-00873, C-23-00874, C-23-00875, C-23-00880, C-23-00886, C-23-00887, C-23-00908 | |

On-Site Inspection/Odor Observation Crimson Holdings, LLC (E8117)

Facility Contacts

Dan Hofbauer – Plant Manager – dhofbauer@crimsonhldg.com

Purpose

On March 22, 2023, an unannounced inspection was conducted at Crimson Holdings, LLC located at 1336 E. Maumee St. in Adrian, Michigan. I was accompanied by Scott Miller, AQD Jackson District Supervisor, and Glenn Preston from the City of Adrian. The purpose of the inspection was to determine the facility's compliance status with applicable federal and state air pollution regulations, particularly with the Michigan Natural Resources and Environmental Protection Act 451 of 1994, Part 55, Air Pollution Control and the administrative rules, and the conditions of Air Use Permit to Install (PTI) number 38-06, issued February 9, 2006, as well as to conduct a follow up to the new stack installation and to conduct an odor observation in the area.

Facility Location

This facility is located in Adrian, Michigan. It is surrounded by commercial and residential properties.

Regulatory Applicability

This facility operates under PTI 38-06 issued February 9, 2006. This permit consists of EU-SprayDryer, described in the PTI as a milk spray drying operation consisting of a drying chamber, a powder conveyor, a pneumatic conveyor, a fabric filter product collector, and a cyclonic product collector.

Facility Background

Historically, this location was owned by Dairy Farmers of America, and they produced a powdered milk product here.

On December 7, 2021, AQD was notified that Crimson Holdings, LLC acquired the assets located at 1336 East Maumee Street in Adrian, Michigan. Crimson Holdings submitted notification that they would be assuming responsibility for the facility's air permit. Additionally, the letter explained that they would be switching from powdered

milk to powdered egg production and that the process for producing powdered egg is the same as that of powdered milk.

Subsequently, odor complaints began to be received about the facility in March 2022. Numerous 901 Violations have previously been cited, and the AQD is currently in escalated enforcement with Crimson Holdings. Additionally, Crimson Holdings has submitted a permit modification that is in the process of being reviewed and drafted.

On December 5, 2022 the Lenawee County Court had ruled that Crimson Holdings could only operate between the hours of 7PM and 7AM until the main stack was properly permitted and operational. At that time, they would be allowed to resume normal operations at the facility for a period of two weeks to see if the stack changes made a difference. On March 16, 2023, Crimson Holdings submitted notice to AQD, the City of Adrian, and the Lenawee County Court that the new stack had been installed.

Arrival

I arrived in the vicinity of Crimson Holdings around 8:25 AM. Winds were out of the SE at about 8 MPH. The temperature was around 41 degrees F with 91% humidity.

Upon my approach to the facility, odors were noted North of the facility near the corner of Dean and Butler. This was the typical odor I have previously smelled from the facility. I noted it at a level 2, but it appeared to be localized to this one spot. Turning onto E. Maumee, I noted odors near the loading area of the facility. I continued driving around the neighborhood. See map below for route taken. I then drove around to Church street and I parked outside the facility on Church Street. I exited the vehicle and noted that there were odors, but they weren't as strong as I had experienced them in the past.

I had brought along the Nikon Forestry Pro II Rangefinder to measure the stack height. From the sidewalk on Church Street, I used the rangefinder a few times. It measured a height between 95 and 98 feet the various times I used it. Given that there is probably a few feet of error with the device, this appears to meet the 100 foot height that Crimson said it would be.

Once Scott and Glenn arrived, we discussed the facility with Glenn. He mentioned that the City has not received any complaints since the new stack has been installed, though the winds have not been favorable for odors in the neighborhood. He said that he has stopped into a few of the local businesses to see if they have noticed a difference and they indicated that the winds have not been blowing their way, so they have not noticed any odors. He said he also talked with the staff from the next township over (to the East) and they have not received any complaints.

After this brief discussion with Glenn we entered the facility, signed in, and met with Dan Hofbauer.

Pre-Inspection Meeting

A brief pre-inspection meeting was held between Dan, Scott, Glenn, and I.

I explained to Dan that we wanted to conduct a facility inspection since the new stack has been installed. Scott and I explained that we wanted to discuss the facility's plans going forward.

Dan explained that the new stack was installed on March 16th, and the facility has still been ramping up production since then. He said they are currently operating from 4PM to 9AM, but plan to start running more tomorrow. He said they could possibly be back up to the 24-hour operations starting tomorrow (3/23). When asked why they have been slowly ramping up Dan explained that it is based on the supply of egg coming in and the fact that the facility has been having some staffing challenges.

We then had asked about the Digester Organics company that we observed entering the facility with us. Dan explained that they are there to look at the wastewater system. He explained that they are in the process of looking at ways to improve their DAF system, and that they will be starting a trial on April 3rd for a nano-bubble technology. He explained that this would be super-oxygenated water that is added to the system to help neutralize the wastewater odor and help with BOD reduction. He said that the DAF system will still be located in the same place, but they plan to route the emissions through the roof instead of through the side wall vent they are currently using.

Dan then explained that they are still looking at what can be done for the odors from the drying process beyond the changes they have already made to the stack. He said that they are looking into possibly using the nano-bubble technology to add water into the stack to help neutralize the organic compounds rather than continuing to use the odor neutralizer chemical that they use now.

Onsite Inspection Narrative

Before heading out onto the facility floor, we were provided with hair nets, white coats, and boot covers. Additionally, we had to wash our hands.

We began the facility walk through in the reverse osmosis area. Dan explained that they have had the reverse osmosis system in place since early December. He said that it runs well. He then showed us a cup of the water that is being removed from the liquid egg. This water had a slight odor to it. Dan explained that test the water levels for the water pulled from the reverse osmosis system. If the levels are low enough, they are sent to the City water system, but if they are above a certain level, they are processed at the facility's wastewater system. We were able to observe the system's control panel, and Dan showed us that the system is currently pulling about 41 gallons of water per minute from the liquid egg.

Next, we walked through the area where the storage tanks are located. We observed a couple workers cleaning out one of the tanks. There was a slight odor from this process.

Next, we observed a new machine that the facility has started using. Dan explained that they receive a small amount of incoming egg that is still in the shell. This egg comes in barrels. The new machine allows the material to be dumped into the machine and the eggshells are separated out. Dan explained that in mid-April they will begin shipping the eggshells to a compost facility near Ann Arbor instead of

landfilling them. He explained that ultimately, the process will have the shells being conveyed to an open- topped dump trailer located outside that will be removed every few days. He plans for the conveyor and dump trailer to be going in during the week of April 17th. Scott indicated to Dan that this dump trailer with the shells could be a potential source of odors and that a different style of holding container may be better for controlling odors.

During the walk, Dan explained that he has continued to conduct odor observations in the area since the new stack went up. He said that this morning, incoming staff were saying that they could notice the smell at ground level near the plant. He explained that he thinks that the stack has helped, but they are still looking at how to better treat the egg before it gets to the dryer to help reduce odors. He stated that putting a scrubber in takes up a lot of room and he doesn't know where it would fit in their facility.

We then observed the pasteurizer equipment. Dan explained that they now pasteurize about 75-80% of the liquid egg. He stated that the process typically operates at a temperature between 137 and 138 degrees, with a minimum divert point of 135 degrees.

Glenn then asked how many eggs the facility processes. Dan explained that one tanker of eggs is approximately 400,000 eggs. If the facility runs for 24 hours, he estimated that they could process about 180,000 lbs of concentrated egg, which equals about 330,000 lbs of incoming liquid egg product. Glenn asked how much of the incoming egg comes in the shell. Dan said about 15%. He explained that they are trying to work with the processor that sends the shelled eggs to get them to separate the shells before they send it as it is very labor intensive for them to separate the liquid egg from the shell at Crimson.

We then observed the control room and the dryer. The dryer was being cleaned at this time.

Lastly, we observed the packaging and warehouse area. Dan explained that it currently takes about 40 minutes to fill one super bag of dried egg product.

Post-Inspection Meeting

We had a brief post-inspection meeting in the packaging area. Scott expressed that AQD's position is that the facility stops using the odor neutralizer. Dan explained that, from a company and finance standpoint, his preference is to stop using it because it is very expensive.

We then discussed the need for a revised Nuisance Minimization Plan for Odors to be sent to AQD. Dan said that he will discuss with Lillian Woolley, Fishbeck, and get it to us soon.

We thanked Dan for his cooperation and the continued work being done to try to resolve the ongoing issues.

We departed the facility around 9:45 AM.

Compliance Summary

No major issues were noted during this inspection. Odors experienced in the area were around a Level 2 on the AQD odor scale. AQD is still in escalated enforcement discussions with Crimson Holdings to bring them back into compliance with Rule 901.



Image 1(Facility view) : Facility view from Church Street.



Image 2(Facility view) : Facility view from Church Street



Image 3(Facility view) : View of Facility from corner of Church and Gulf



Image 4(Stack) : Close-up view of stack

NAME Steph Weems

DATE 3/22/2023

SUPERVISOR [Signature]