

**IOWA DEPARTMENT OF NATURAL RESOURCES
FIELD SERVICES AND COMPLIANCE BUREAU
FIELD OFFICE #2 - MASON CITY IOWA**

DATE: January 20, 2021
TO: The Record
FROM: Kayla Beck *KB*
SUBJECT: Lehigh Cement Company 700 25th St NW, Mason City, Iowa
Complaint #29028 Stack Malfunctioning

On December 11, 2020, this office received an anonymous complaint that alleged the air scrubber at the facility has been malfunctioning for a few weeks now. This is causing wet cement dust to be deposited over a wide area of the plant property. The vehicles in the parking lot get coated with this mud and must be washed frequently. The slurry is also getting into storm drains, causing possible water quality issues. The complainant stated the facility made a minimal attempt to repair the scrubber, but it did not work and no further effort has been made. The caller insinuated there are multiple air violations that are currently taking place at the facility.

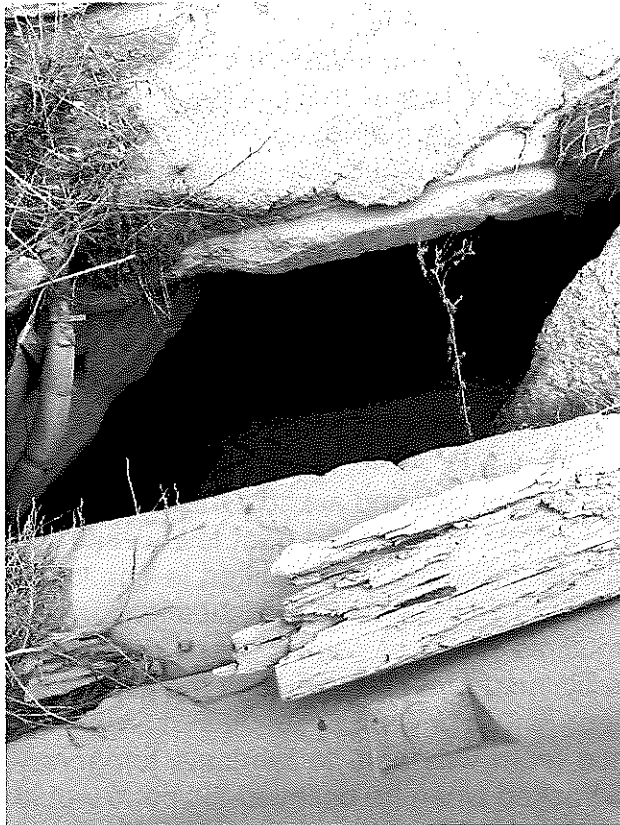
On December 14, 2020, David Knoll and I visited the facility to investigate the complaint. As we approached the facility we made visual observations of the facility's main stack (EP 25). It was clearly in operation. At the time of arrival, we did not note any visual signs of particulate matter (PM) in the emissions coming from the stack. We arrived at the main office and observed many cars were covered in varying amount of particulate matter. However, it should be noted the parking area and most of the grounds are unpaved so some amount of dirt is to be expected. Other more permanent structures such as building windows and signs had a heavier amount of larger particles with some structures being mostly coated.

David and I entered the office and met with Michael Burkhart, Environmental Manager; Brodie Pederson, Plant Manager and Wendy Krause, MW Area Director of Environment and Sustainability. I shared with them the reason for our visit and asked if there had been any issues with the scrubber recently. Brodie confirmed that in the past few weeks the scrubber has been taken out of operation twice for incidents that resulted in employee vehicles being covered in dirty scrubber water. He stated that during the investigation into the cause of these events the facility found multiple levels of compromised demisters. These missing or malfunctioning demisters are claimed to be the cause of the events.

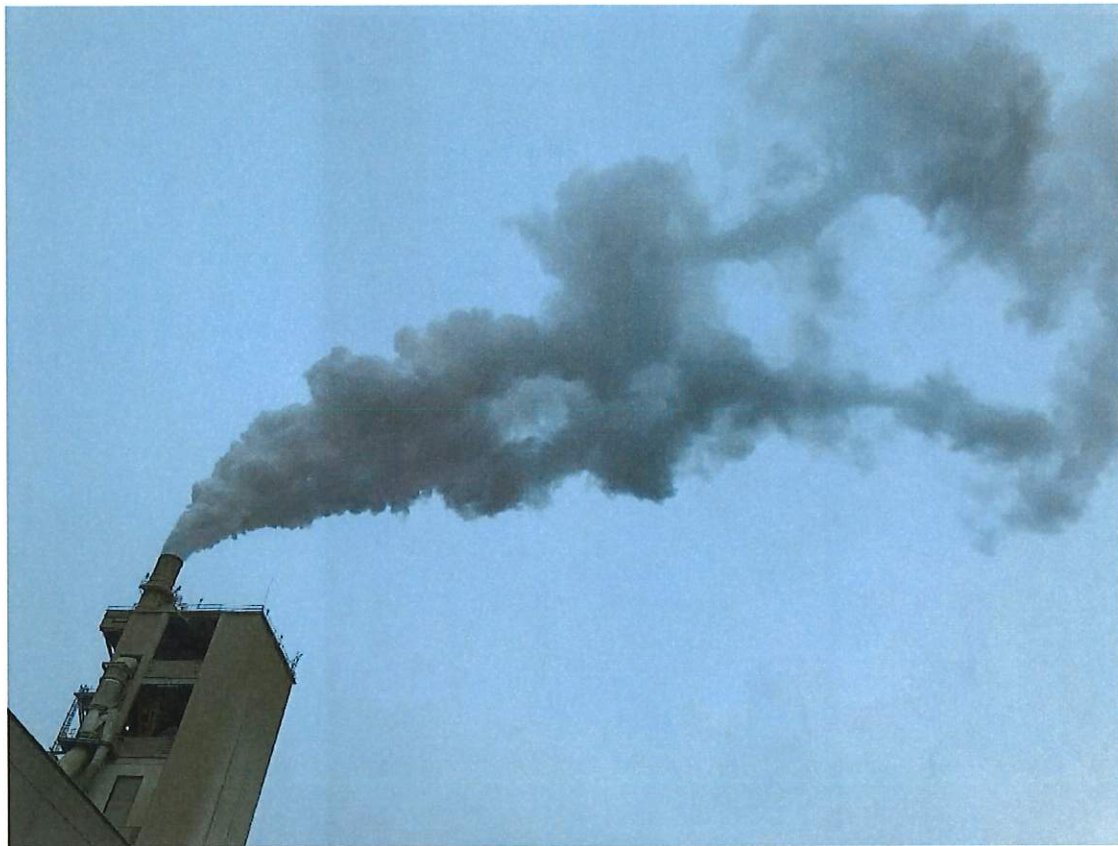
Brodie further explained that their maintenance team was able to fabricate temporary demister plates until the corrects parts arrived. I asked when he believed his parts would be available. Brodie stated that they were ordered and set to arrive on January 15th. David asked if the material and splattering on the windows had been caused by one of the scrubber events. Brodie agreed it was.

I then inquired if there had been any excess emissions resulting from the two events. Michael stated there had not been any exceedances. I asked if we could view the data from that EP's Continuous Emission Monitoring System (CEMS). Brodie said he would have the data pulled and sent to me. At this time, we asked if we could be taken to view some of the storm water intakes nearest the parking area. I viewed 3 intakes and saw no signs of impact. Drains were well protected with well-maintained straw wattles. Another observation of the plume exiting EP-25 remained visually free from excess particulate matter. We concluded the visit at 4:15 PM with a reminder we would determine any instances of violation once the CEMS data was provided.

The CEMS data was received on December 14. Data for SO₂, NO_x, and PM were provided. The PM data captured by the facilities CEMS is only the filterable amount. The permit limit for PM emissions at Lehigh is comprised of both filterable and condensable. So, at this time I was unable to use the data to determine if an excess emission had occurred. There were no noted violations at the time the complaint was investigated. This office did require the facility to submit a compliance plan for EP-25. The plan required a detailed timeline of events, steps take or to be taken to ensure proper function of the control equipment and a record of all maintenance performed on the scrubber in the last 12 months. The plan was submitted on January 6, 2021, and deemed complete. Repairs are estimated to be complete by March 2021. No further action on this complaint is necessary at this time.



Pictures taken by David Knoll and Kayla Beck of FO #2 on December 14, 2020. Pictures 1 and 2 demonstrate two different storm water intakes at Lehigh Cement Company. Water flowing in Picture 1 is clear and free from sediment. Picture 2 shows the protection provided by straw wattles covering intakes.



Picture 3 shows the visual condition of the plume coming from the scrubber (EP-25) at the time of the investigation.



Picture 4 is a continuation of Picture 3. It demonstrates the edge of the plume captured at the same time.



Picture 5 demonstrates an impacted window that is coated in dirty water droplets from the scrubber events.