

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

A056364446

FACILITY: Kellogg USA Inc.		SRN / ID: A0563
LOCATION: 425 Porter Street, BATTLE CREEK		DISTRICT: Kalamazoo
CITY: BATTLE CREEK		COUNTY: CALHOUN
CONTACT: Ronney Banfill , EHS Manager		ACTIVITY DATE: 07/21/2022
STAFF: Monica Brothers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced scheduled inspection		
RESOLVED COMPLAINTS:		

This was an unannounced, scheduled inspection. Kellogg is a cereal production company that makes a variety of cereals, like Rice Krispies, Raisin Bran, and various extruder-shaped cereals. The last air quality inspection was on 3/22/17, and they are currently operating under PTI# 9-08L.

Staff (Monica Brothers) arrived at the facility at about 9:00am. I introduced myself to the security guards and let them know that I was there to do an air quality inspection for the State of Michigan. They had me fill out some forms related to safety requirements and confidential information and then instructed me to watch a brief safety video.

They do not allow jewelry in the production areas, and they require hearing protection that can be found by a metal detector, which they provided. They also require steel toed safety shoes, safety vest, and a hairnet. Before walking into a production area, the bottoms of boots are sprayed, and entrants are required to use hand sanitizer.

For the last inspection in 2017, Jennifer Hawks was the contact and EHS manager, but there have been some recent role-shifts, and now Ronney Banfill is the new EHS Manager. He and Chris DeYoung, Facilities Engineer, met with me for the inspection. They first led me to a nearby conference room where we met with a few other Kellogg employees. I gave them my business card and briefly explained the inspection process and the types of records I would want to see after the plant tour. I then asked them some initial questions about the facility. They said that there are some major changes that will be happening with Kellogg in the near future. They are splitting the company into three parts, with the cereal production portion to be under the new name "North American Cereal Company". They also do not run the shred lines much at all anymore, and after November 2023, they will be getting rid of the Dx line completely. They will likely be seeking to alter their PTI when these changes occur. The plant operates 24 hours per day and 7 days per week with around 300-375 employees.

Below is a summary of what I observed on the facility tour, as well as my review of the associated recordkeeping requirements. During the inspection, we took a look at the roof and penthouses that are the centralized emission points for the various emission units at the facility. The roof looked clean, other than some residue from prior upsets, and I did not see any opacity from most of the emission points. I could see about 5%-10% opacity from a couple of the emission points. However, they are allowed up to 10% opacity for some of their emission units.

EU-102N (North Shred Line): Two cereal manufacturing lines

- I.1-14: No particulate testing has been requested to date.
- IV.1-2: All of the wet scrubbers have a no flow alarm and instrumentation to measure the scrubbing liquid flow rate.

- V.1: No particulate testing has been requested to date.
- Ronney sent me documentation that shows that they record the monthly liquid flow rate for each scrubber.
- VI.2: Ronney sent me a log of their monthly visible emissions checks.
- VI.3: The facility keeps all preventative maintenance schedules, plans, and records in a program called SAP. Rotoclones are on a 6-month maintenance schedule and motors are on a 12-month schedule. This program also keeps a list of the maintenance requirements for each piece of equipment.
- VIII.1-11: stacks looked to be the correct dimensions and are discharged horizontally through “penthouses” on top of the production building roof.

EU-BULKSTORE: storage silos and handling process (a fines handling system, a vacuum cleaning system, and two railcar unloading receivers).

- **I.1-8: Particulate testing was conducted on EU-Fines-48 in 2014 and the results were in compliance with the PM limits. No other particulate testing has been requested to date.**
- **I.9: The facility is performing monthly visible emission checks and recording the results.**
- **V.1: Particulate testing was conducted on EU-Fines-48 in 2014 and the results were in compliance with the PM limits. No other particulate testing has been requested to date.**
- **VI.1: The facility is performing monthly visible emission checks and recording the results.**
- **VI.2: The facility keeps all preventative maintenance schedules, plans, and records in a program called SAP.**

EU-SUGARSHACK: Bulk storage silos and handling processes

- I.1-4: Testing on the rice line dryer (Stack Oven Z1/2-800-6), the rotary line cooler (Stack Cooler 800-8) and the sugar reclaim (Stack SugRec-45) was conducted on 1/13/09. No other particulate testing has been requested to date.
- **I.5: The facility is performing monthly visible emission checks and recording the results.**
- V.1: Testing on the rice line dryer (Stack Oven Z1/2-800-6), the rotary line cooler (Stack Cooler 800-8) and the sugar reclaim (Stack SugRec-45) was conducted on 1/13/09. No other particulate testing has been requested to date.
- **VI.1: The facility is performing monthly visible emission checks and recording the results.**
- VI.2: The facility keeps all preventative maintenance schedules, plans, and records in a program called SAP.
- VIII.1-7: stacks looked to be the correct dimensions and are discharged unobstructed downwards to the ambient air.

EU-101S: Bran Line (Cereal Line No. 3)

- I.1-28: The facility was supposed to test Cooler-700-18 within 180 days of trial operation but this equipment has not yet been installed. They are now in the process of installing the equipment, but under Rule 290 because it is now considered a separate project from the one that was originally permitted.
- I.29: The facility is performing monthly visible emission checks and recording the results.
- IV.1-2: All of the wet scrubbers have a no flow alarm and instrumentation to measure the scrubbing liquid flow rate.
- V.1: The facility was supposed to test Cooler-700-18 within 180 days of trial operation but this equipment has not yet been installed. They are now in the process of installing the equipment, but under Rule 290 because it is now considered a separate project from the one that was originally permitted.
- VI.1: Ronney sent me a document where they record the monthly liquid flow rate for each scrubber.

- VI.2: The facility is performing monthly visible emission checks and recording the results.
- VI.3: The facility keeps all preventative maintenance schedules, plans, and records in a program called SAP.
- VI.4: Records were available and up to date.
- VI.5: Ronney showed me the online database where they keep all of the SDSs for each of their flavorings.
- VII.1: The facility was supposed to report the completed installation of Cooler-700-18, Oven 700 Stack SV-700-9, CenVac-700-13, CenVac-700-17, and Oven-700 Stack SV-700-10, but this equipment was never installed. It is now being installed under Rule 290 because it is now considered a separate project from the one that was originally permitted.
- VIII.1-14: stacks looked to be the correct dimensions and are discharged unobstructed horizontally to the ambient air.

EU-COATER: Bran and Rice Cereal Coater and Dryer

- I.1-9: No particulate testing has been requested to date.
- I.10: Ronney showed me a VOC 12 month rolling calculations table in a spreadsheet for this emission unit. The facility appears to be consistently under their 12.0 tpy permit limit and in compliance with this condition.
- I.11: The facility is under the 655.2 lbs/day limit and in compliance with this condition.
- I.12: The facility is performing monthly visible emission checks and recording the results.
- IV.1-2: All of the wet scrubbers have a no flow alarm and instrumentation to measure the scrubbing liquid flow rate.
- V.1: No particulate testing has been requested to date.
- V.2: No VOC testing has been requested to date.
- VI.1: Ronney showed me a document where they record the monthly liquid flow rate for each scrubber.
- VI.2: The facility is performing monthly visible emission checks and recording the results.
- VI.3: The facility keeps all preventative maintenance schedules, plans, and records in a program called SAP.
- VI.4: Records were available and up to date.
- VI.5: Ronney showed me the online database where they keep all of the SDSs for each of their flavorings.
- VI.6.a-e: Ronney sent me spreadsheets that show that they are keeping all of these records and calculations.
- VIII.1-3: stacks looked to be the correct dimensions and are discharged unobstructed horizontally to the ambient air.

EU-101N: Rice Line (Cereal Line No.4)

- I.1-34: Particulate testing for the Mod7Cooler-800-26 and Kone-800-27 was performed in 2018. They passed this testing and were under the associated limits.
- I.35-36: The facility is performing monthly visible emission checks and recording the results.
- IV.1-2: All of the wet scrubbers have a no flow alarm and instrumentation to measure the scrubbing liquid flow rate.
- V.1: Particulate testing for the Mod7Cooler-800-26 and Kone-800-27 was performed in 2018. They passed this testing and were under the associated limits.
- VI.1: Ronney showed me a document where they record the monthly liquid flow rate for each scrubber.
- VI.2: The facility is performing monthly visible emission checks and recording the results.

- VI.3: The facility keeps all preventative maintenance schedules, plans, and records in a program called SAP.
- VII: The facility submitted notification of the completion of construction for Mod7Cooler-800-26, Cooker-800-1, Mill-800 Stack SV-800-3, Mill-800 Stack SV-800-4, FFCooler-800-22, Mod12Cooler-800-24, Oven-800-6, HoodsDrums-800-8, Kone-800-27, CenVac-800-19, CenVac-800-20, CenVac-800-25, FFCooler-800-22 in September 2018.
- VIII.1-15: stacks looked to be the correct dimensions and are discharged unobstructed horizontally to the ambient air.

EU-DXCOATDRY: Dx Cereal manufacturing line and coating dryer (Cereal Line No.5)

- I.1-15: Particulate testing was conducted on CoaterConveyor-900-13 in 2013 and the results were in compliance with the PM limits. No other particulate testing has been requested to date.
- I.16: Ronney sent me a VOC 12 month rolling calculations table in a spreadsheet for this emission unit. The facility appears to be consistently under their 24.0 tpy permit limit and in compliance with this condition.
- I.17: The facility is under the 1,073 lbs/day VOC limit and in compliance with this condition.
- I.18: The facility is performing monthly visible emission checks and recording the results.
- IV.1-2: All of the wet scrubbers have a no flow alarm and instrumentation to measure the scrubbing liquid flow rate.
- V.1: Particulate testing was conducted on CoaterConveyor-900-13 in 2013 and the results were in compliance with the PM limits. No other particulate testing has been requested to date.
- V.2: No VOC testing has been requested to date.
- VI.1: Ronney sent me a spreadsheet where they record the monthly liquid flow rate for each scrubber.
- VI.2: The facility is performing monthly visible emission checks and recording the results.
- VI.3: The facility keeps all preventative maintenance schedules, plans, and records in a program called SAP.
- VI.4: Records were available and up to date.
- VI.5: Ronney showed me the online database where they keep all of the SDSs for each of their flavorings.
- VI.6.a-e: Ronney showed me spreadsheets that show that they are keeping all of these records and calculations.
- VIII.1-8: stacks looked to be the correct dimensions and are discharged unobstructed horizontally to the ambient air.

FG-BOILERS: Powerhouse boilers (EU-BOILER1 and EU-BOILER2)

- There are no longer any oil storage tanks for the boilers because they are no longer using fuel oil. These boilers have Low NOx burners and are natural gas-fired only. Boiler2 was running at 16,000 lbs steam/hr during the inspection. Boiler1 was not running.
- EU-BOILER1
 - K10016401
 - State ID No. M354193M
 - Zurn Keystone
 - 99 MMBtu/hr
 - Built in 1987
- EU-BOILER2
 - K10016400
 - State ID No. M354194M
 - Zurn Keystone

- 99 MMBtu/hr
- Built in 1987
- I.1: No testing has been requested since the boiler testing in August of 2007.
- III.1: These boilers are natural gas only and no longer burn fuel oil.
- V.1: No NOx testing has been requested since the boiler testing in August of 2007.
- VI.1-2: Records of natural gas usage are being kept and are up to date.
- VIII.1-3: stacks looked to be the correct dimensions and are discharged unobstructed vertically upwards to the ambient air.

FG-SANITATION: Cleaning and sanitizing chemical usage for non-janitorial activities

- **EU-CLEANERS and EU-SANITIZERS**
- **I.1: The facility is keeping 12-month rolling VOC records and is below their limit of 36.1 tpy.**
- **II.1: The facility is keeping material usage records for all of their sanitizing products and separating them between these VOC-content dependent usage limits. Their records show that they are under the PTI limits for each category.**
- **III.1: I did not see any open containers during the inspection. The facility appears to be capturing waste materials as required by this condition.**
- **III.2: The facility appears to be minimizing fugitive emissions and is keeping containers closed when not in use.**
- **V.1: No testing of the VOC content of any cleaning or sanitizing material has been requested to date.**
- **VI.1: Records are being kept and are up to date.**
- **VI.2.a-d: Ronney sent me spreadsheets that show that they are keeping all of these records and calculations.**
- **VI.3: Ronney showed me the online database where they keep all of the SDSs for each of their sanitizing materials.**
- **VI.4: The facility is keeping these records and in an acceptable format.**

FG-FACILITY:

- I.1-7: Ronney sent me all of the spreadsheets that show these 12-month rolling calculations for CO, SO₂, NO_x, VOC, PM, PM_{2.5}, and PM₁₀. They all seemed to be calculated correctly and were consistently under the 89.9 tpy limits for each pollutant.
- I.8: The facility is keeping these records and is under the 9.0 tpy limit (12-month rolling) for each individual HAP
- I.9: The facility is keeping these records and is under the 22.5 tpy limit (12-month rolling) for aggregate HAPs.
- I.10: The facility is keeping these records and is under the 89,900 tpy limit (12-month rolling) for carbon dioxide equivalent.
- I.11: The facility is keeping these records and is under the 1.0 tpy limit (12-month rolling) for furfural.
- II.1.a: I viewed their fuel and natural gas usage records during the inspection and they appear to be under the 12-month rolling limit, as stated in this condition.
- VI.1: Records were available and up to date.
- VI.2: The facility is keeping these records
- VI.3.a-b: Ronney sent me the spreadsheet with these records and calculations for individual and aggregate HAPs. They are keeping monthly and 12-month rolling records appropriately.
- VI.4: The facility is keeping these natural gas usage records and is under the usage limits.
- VI.5: The facility is keeping 12-month rolling records for CO₂ equivalent.
- VI.6.a-e: Ronney showed me a spreadsheet that shows that the facility is keeping monthly records of Furfural-containing material usage, Furfural content in % by weight, and Furfural emissions per month and 12-month rolling. They are under their permit limits for 12-month rolling Furfural emissions.

I also reviewed Rule 290 records for the code dating equipment. They seem to be complying with the exemption limits.

The facility seemed to be in compliance at the time of the inspection.

NAME Monica Brothers

DATE 9/19/22

SUPERVISOR RA L 9/20/22