DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

P058545940

FACILITY: CLEMENS FOOD GROUP		**SRN / ID:** P0585
LOCATION: 572 Newton Road, COLDWATER		**DISTRICT:** Kalamazoo
CITY: COLDWATER		**COUNTY:** BRANCH
CONTACT: Mitch Tannehill , EHS		**ACTIVITY DATE:** 09/07/2018
STAFF: Dennis Dunlap	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

This was an unannounced inspection. Mitch Tannehill was the contact for Clemens. Dennis Dunlap was the inspector for AQD. This is a pork processing facility. It takes in about 10,000 hogs per day. There is one 10-hour shift per day five days a week with 800 employees. Production began on about Sept. 5, 2017. The facility has an opt out permit (6-15A) that limits NOx emissions. They are a minor source of HAP emissions. The sludge dryer has not been installed.

The facility has installed three 1,200 HP boilers (FGBoilers). They were permitted to install four. They are currently natural gas-fired. They have no plans to use distillate oil or animal fat or vegetable oil at this time as allowed in the permit. The boilers are subject to 40 CFR Part 60 Subpart Dc and 40 CFR Part 63 Subpart JJJJJJ. They have submitted a notification of the startup of the boilers as required by the permit. The boilers completed startup on 9/5/17. They have a separate meter to track gas usage for the boilers. They are tracking gas usage each month. They now have 12-months of data and they are calculating 12-month rolling time period gas usage. Gas usage is tracked for each boiler.

The facility has a flexible group FGNatGas. This consists of the three singers, the blood dryer, air make-up units, heaters, and the sludge dryer (not installed). There is a permit requirement to monitor gas usage on a monthly basis. This is done by subtracting boiler gas usage and emergency generator gas usage from the facility gas usage.

There is a master recordkeeping sheet in excel that tracks gas usage for the facility and facility-wide emissions (FGFACILITY), gas usage for the boilers, gas usage for the generators and hours of operation for the generators. Calculations showing the 12-month rolling time period data are done where required. This recordkeeping sheet is done by William Fink at the Clemens Pennsylvania facility and is available at the Coldwater facility. The 12-month rolling time period NOx emissions in August, 2018 were 8.5634 tons. The limit is 78.1 tpy.

The facility has installed 4 natural gas-fired emergency generators rated at 268 HP (FGGenerators). They were permitted to install 5. They are subject to 40 CFR Part 60 Subpart JJJJ. Clemens submitted a notification of the startup of the generators. They were started up in August, 2017. They are tracking emergency and non-emergency hours for each generator. Each generator has an hours meter. Each month the generators run for about 20 minutes for readiness testing and maintenance. They are allowed 100 hours per 12-month rolling time period for this. Each generator was well below this. Emergency hours were about 23. Each generator is limited to 500 hours per 12-month rolling time period for emergency use. Each generator has a tag from the manufacturer that these are certified engines that meet EPA Regulations for 2016 for stationary spark ignition engines. The certified emissions on the tag are 2.7 g/kw-hr for NOx, 5.4 g/kw-hr for CO, and 1.3 g/kw-hr for VOC. These limits appear to be in compliance with 40 CFR part 1048 as referenced in 40 CFR Part 60 Subpart JJJJ. Because these are certified engines testing is not required as long as the engines are operated and maintained according to the manufacturer. The notification letter above states that the engines will be operated and maintained as recommended by the manufacturer. The 12-month hours of operation for the generators ranged from 23.3 to 32.9 hours. In October, 2017 the generators were used for emergency power. It will be recommended to Clemens to use the certified emission factors in emission calculations.

The ammonia system (EUAmmoniaRef) is used for refrigeration and freezing of the products. The permit has a checklist in Appendix A that needs to completed twice a year. It was completed on: 11/22/17; 4/19/18; 5/30/18;7/2/18; and 8/27/18. Emergency contact numbers are posted at the guard house. They have an emergency response plan that has been approved by the City of Coldwater Fire Dept. The last meeting with the fire dept. was on May 18, 2018. The emergency response plan was developed on 5/1/17. It was reviewed on 10/13/17 and revised on 3/26/18. When unloading ammonia, they have

ammonia return lines. They do not add nitrogen stabilizer to ammonia storage tanks. They have an emergency shut off for the ammonia system. On 11/26/17 an ammonia leak was discovered in a compressor room at 7:56 AM. The cause was a faulty valve. Ammonia alarms were activated. About 48 pounds was released to the atmosphere. PEAS, 911, and the Coldwater Fire Dept. were alerted. The leak was repaired at 11:15 AM.

The facility has an Odor Management Plan and Malfunction Abatement Plan. This plan was first submitted on Dec. 30, 2014. Revisions were done on 2/5/15, 4/21/16, 10/25/17, and 12/11/17.

The facility has a wastewater treatment system. The sludge dryer was not installed. It appears that the wastewater treatment system is exempt by Rules 285(2)(m) and (n). They have a truck washout area. Some odor was present onsite downwind of the wastewater treatment process building. There is a storm water basin near the guard house. The wind was from the northeast. A livestock (manure) odor was present on Newton Road southwest of the facility. Rendering odors were not detected. No odors were detected west of the facility on North Michigan Ave. in a residential area. No visible emissions were observed at the facility. Treated wastewater is sent to Coldwater Wastewater Treatment Plant. Staff from the facility drive around the facility each day to check for odors. This may not happen every day.

Only the rendering part of the facility was entered. The pork processing area was not entered where the three singers are located. The 20 K Scrubber (FG20KScubberalso called the Blood Scrubber) is located outside the rendering area on the east side of the facility. This packed bed scrubber uses chlorine dioxide in the scrubber water. The chlorine dioxide is produced in a generator where 25% Sodium Chlorite and 16% HCl are mixed. These two chemicals are stored in plastic bulk tanks. Because this is treating process water, it appears that this is exempt by Rule 285(2)(m). Emissions from the spray tower, which takes emissions from the blood dryer, and emissions from the milling room bag house, enter this scrubber. The pressure drop gauge is outside near the scrubber. This was reading 4.7 (minimum is 3.5). The water makeup flowrate (wmfr) and ORP gauges are located inside. ORP was 758 (minimum 550) and wmfr was 6.56 gpm. In general, the wmfr's were higher because the flow rates were increased in summer to provide more cooling and as production increased. The spray tower wmfr was reading 51 gpm. The flow rates can also be read from the control room screen. The facility is going to evaluate the scrubber flow rates and may submit a revision to the Odor Management Plan in the next year.

The venturi scrubber, also located outside, receives emissions from the hair hydrolyzer, the cooker, presses, and screw conveyors. The pressure drop was reading 3.94 and the wmfr was reading 35 gpm. Emissions from the venturi go to the 25K packed bed scrubber (FG25KScrubbers, there is only 1, located outside). The pressure drop was 0.28, wmfr was 8 gpm, and ORP was 669. From this scrubber emissions go to the 100K scrubber (FG100KScrubber), also known as the room scrubber. The room scrubber also processes air from the rendering room. Pressure drop for this scrubber was reading 4.52, wmfr was reading 5,4, and ORP was reading 669.

The blood system consists of a blood tank, coagulator, centrifuge, dryer, and storage silo. Material from the hair hydrolyzer is also dried here and is mixed with the blood meal. At this time the white blood cells are not separated from the red blood cells. There is a load out area for the blood meal.

Materials to be rendered are stored in the raw material bin. They go to a grinder, a cooker, another grinder, a fat separator, a grease press, grinder, screening process, and a silo. Grease is also processed and stored. There is load out area for grease and dried meal.

Rendering odors were not strong inside the rendering area.

NAME Dennis Dunlap DATE 9/13/18 SUPERVISOR MRA 9/12/2018