

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

N146164753

FACILITY: WELCH FOODS INC		SRN / ID: N1461
LOCATION: 400 WALKER ST, LAWTON		DISTRICT: Kalamazoo
CITY: LAWTON		COUNTY: VAN BUREN
CONTACT: Bart Leonard , Technical Services Manager		ACTIVITY DATE: 07/12/2022
STAFF: Rachel Benaway	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site inspection to verify compliance with all state and federal air use regulations.		
RESOLVED COMPLAINTS:		

AQD staff (Rachel Benaway) completed an unannounced air quality inspection of Welch's Foods, Inc. (N1461), a beverage bottling facility located in Lawton, MI, on 7/12/2022. The purpose of this inspection was to verify that Welch's Foods, Inc. is in compliance with their Permit to Install (PTI) #713-86C and all state and federal air use regulations. Welch's is considered a synthetic minor source of emissions for sulfur oxides (SOx) and a minor source of hazardous air pollutants (HAPs). The boiler at the facility is subject to New Source Performance Standard (NSPS) 40 CFR Part 60 Subparts A and Dc. The last inspection was completed on 7/12/2018. Bart Leonard is the Technical Services Manager responsible for submitting requested records and was present for the on-site inspection. Personal protection equipment includes a hair net (provided), safety glasses, safety shoes, and earplugs. No jewelry may be worn in the facility. Entrance to the facility is gained after showing identification to security at the guardhouse and supplying a facility contact name.

The facility operates 2 shifts per day, 5 days a week, and employs approximately 87 people. No new equipment has been installed and no modifications or reconstruction has been done on existing equipment since the time of the last inspection.

#	Equipment at Facility
2	Boilers
2	Printers (Rule 287(2)(c) exempt)
	Bottle labelers and Adhesives (Rule 290(2)(a)(i) exempt)
2	Cold cleaners (Rule 281(2)(h) exempt)
2	Emergency generators (Rule 285(2)(g) exempt)

Currently, there is one bottling line running, but preparations are underway to install a second line. The facility is utilizing the Rule 287(2)(c) exemption for the ink used to code each bottle and the Rule 290(2)(a)(i) exemption for the adhesives used for bottle labels. Staff explained that if the exemptions will no longer apply due to the increase in emissions from the second line, the facility will need to submit a PTI application for the change in emissions before the line is installed.

The line consists of a depalletizer, rinser, filler, capper, in-bottle pasturizer, labeler w/printer, body shrink printer, packer, wrapper, and palletizer. The line has two printers because some products are labeled differently than others. Use of the Rule 287 exemption for the ink requires the facility track monthly usage and submit records. From the records submitted, Staff was able to verify that the most ink used in one month, in the most recent two-year period, was 2.5 gallons in October of 2020. This is well below the Rule 287 limit of 200 gallons per month. The ink use appears to be in compliance with the Rule 287 exemption.

The line uses two types of adhesives for the bottle labels. The Technomelt Cool 250A is a hotmelt adhesive that appears to be exempt under Rule 287(2)(i). The Aquence LG45C is a liquid adhesive that contains no VOCs but does contain N-(3-(Trimethoxysilyl)propyl)ethylenediamine, which has an annual ITSL of $8\mu\text{g}/\text{m}^3$. The facility submitted two years of adhesive usage and included the disclaimer, "N-(3-(Trimethoxysilyl)propyl)ethylenediamine has a boiling point of 264 degrees Celsius and a vapor pressure of 0.003mmHG. It would not be volatile under the conditions of the process (room temperature, unheated) and would not be emitted. It also would not be volatile under the conditions used in Method 24 testing because of the extremely low vapor pressure." No emissions calculations were therefore submitted. The adhesive use appears to be in compliance with air use regulations at this time.

Parts Washers

There are two Crystal Clean parts washers on site. Both units were located with the lids down. A new operational use sticker was provided and applied to each during the inspection. The facility submitted MSDS's for the Crystal Clean 142 Mineral Spirits solvent used in the units. The units appear to be in compliance with the Rule 281 exemption.

Emergency Generators

The 1395CC Cummins emergency generator is located just outside the visitor entrance. The generator runs on propane and there is a small propane tank located next to the unit. The generator has an hours meter that read 450 hours.

The Detroit Diesel emergency generator is located in a locked building in the visitors parking lot. The generator runs on diesel and has recorded 557.46 hours on the hours meter. Both units appear to meet the Rule 285(2)(g) exemption.

The following is a list of special conditions listed in the PTI for each emission unit of which staff was able to make a compliance determination.

BOILERS

The #3 Boiler had the fuel oil compatibility equipment removed years ago and only uses natural gas. The boiler was installed in 1967, has a rated heat capacity of 62.5 MMBtu/hr (50,000 lb steam/hr) and is Grandfathered.

The #4 Boiler uses only natural gas and was installed in 1997. The boiler has a rated heat capacity of 95.5 MMBtu/hr (75,000 lb steam/hr) and is subject to NSPS Dc.

PTI #713-86C

SC	Condition	COMPLIANT?
13	Sulfur dioxide emission rate from Boiler 3 shall not exceed 72.3 lb/hr nor 89.8 tpy	Yes
14	Sulfur dioxide emission rate from boilers 3 and 4 shall not exceed 89.9 tpy	Yes
15	Sulfur dioxide emission rate from boiler 3 shall not exceed 1.11 lb/MMBtu heat input in 24-hr period	Yes
16	No. 6 fuel oil usage rate for boiler 3 shall not exceed 10,920 gal/day nor 1,129,200 gal/yr, based on 12-month rolling period	N/A
17	Shall only use natural gas in boiler 4	Yes
18	Total heat input from combustion of natural gas and No. 6 fuel oil in boilers 3 and 4 shall not exceed 569,375 MMBtu/yr, based on 12-month rolling period	Yes
19	Visible emissions from boilers 3 and 4 shall not exceed 10% opacity when firing natural gas	Yes


The facility submitted SO² emissions calculations for over a 2-year period from January 2020 to June of 2022. Records indicate a maximum SO² emission rate of 0.055 lb/hr (**SC 13**) and an average SO² emission rate of 0.001 lb/MMBtu in a 24-hr period (**SC 15**). The total annual SO² emissions for 2020 were 0.19 tpy and 0.26 tpy for 2021, well below the permitted limit of 89.9 tpy (**SC 14**).

Monitoring/Recordkeeping:

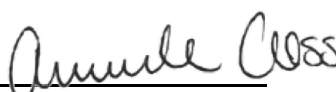
SC	Condition	COMPLIANT?
20	Monitor and record natural gas and fuel oil consumption rates from boilers and space heaters Calculate total heat input on a continuous basis	Yes
21	Record sulfur content of No. 6 fuel oil from Boiler 3	NA
22	Exhaust gases from boiler 3 shall be discharged unobstructed vertically through stack	Yes
23	Monitoring and recording of emissions and operating information is required to comply with 40 CFR 60 A and Dc	Yes

The facility submitted records for the usage and heat input from the natural gas used in the boilers (**SC 20**). Records indicate compliance with the total heat input limit from natural gas combustion, based on a 12-month rolling period, of 569.375 MMBtu/yr (**SC 18**). The facility reported the highest 12-month rolling period heat input value of 128,625 MMBtu in November of 2021 and the lowest at 93,098.25 MMBtu in August of 2020.

The facility appears to be in compliance with all permit conditions and all state and federal air use regulations at this time.

NAME 

DATE 9/23/2022

SUPERVISOR 
Acting DS for Rex Lane