

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

U06230110866441

FACILITY: Glorious Cannabis Company		SRN / ID: U062301108
LOCATION: 2497 E Huron Rd, Au Gres		DISTRICT: Bay City
CITY: Au Gres		COUNTY: ARENAC
CONTACT: Mike Ozerajtys , Director of Operations		ACTIVITY DATE: 02/24/2023
STAFF: Nathanael Gentle	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS:
SUBJECT: Self-Initiated On-Site Inspection		
RESOLVED COMPLAINTS:		

On February 24, 2023, AQD staff conducted a self-initiated onsite inspection at Glorious Cannabis Company. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment Great Lakes and Energy, Air Quality Division (AQD). The inspection was initiated following complaints EGLE received regarding the facility. EGLE staff present for the inspection included Mr. Matt Siler of the Water Resources Division (WRD), Ms. Lori Babcock of the Materials Management Division (MMD), and myself, Mr. Nathanael Gentle of the Air Quality Division. EGLE staff were accompanied by personnel from the State of Michigan’s Cannabis Regulatory Agency (CRA). CRA staff included Ms. Angela Danielkiewicz, Regulation Agent, and Ms. Sydney Rubio, Regulation Officer. State of Michigan personnel were assisted onsite by Glorious Cannabis staff Mr. Mike Ozerajtys, Director of Operations and Ms. Caitlyn Campau, Site Compliance. At the time of inspection, the facility was found to in non-compliance.

Facility Description and History

Glorious Cannabis is located at 2497 E Huron Rd Au Gres, MI 48703. The facility specializes in the cultivation and processing of adult-use and medical marijuana. The primary products produced by the facility are a variety of pre-rolled joints.

The facility consists of a series of grow rooms. Each grow room is utilized for a specific stage in the cultivation process. The plants require different daily light duration requirements at the various stages of the growing process to achieve the optimal final flowering plant for harvest. The grow rooms include the mom room, the propagation room, vegetation rooms, and flower rooms. The mom room consists of marijuana plants at various stages of maturity. These plants are used to produce clones. Portions of the mom plants are clipped and placed into a growing medium. The clippings are then transferred to the propagation room. In the propagation room, the clippings take root and grow, becoming new plants. Once large enough, the new plants are transferred to one of the vegetation rooms. In the vegetation rooms, hours of light delivered to plants is optimized to allow the plants to grow rapidly. Once plants are at the desired size, they are transferred to one of the flower rooms. In the flower rooms light duration is decreased. This triggers the plants to begin producing buds. The buds/flowers of the plant are the part of the plant utilized for the final products.

Plants are harvested and the buds/flowers are removed by hand. The remaining plant material is ground up in an electric chipper and disposed of. The harvested buds are further processed at the facility and made into pre-rolled joints. The pre-rolled joints made at Glorious Cannabis consist of

a mixture of the ground up flowers and bubble hash. The mixture allows the facility to produce pre-rolls with a higher THC content than would otherwise be obtainable with pre-rolls consisting only of flower. Bubble hash is produced onsite by further processing the harvested flowers. Bubble hash is created by removing the trichomes from the harvested flowers. Trichomes form on the surface of cannabis flowers during growth. The trichomes are the portion of the plant containing the cannabinoids and terpenes. The trichomes are removed using ice water. The removed trichomes are then dried, creating the bubble hash.

Energy used to operate the facility is primarily obtained from the grid. The facility consists of two natural gas fired emergency generators for periods in which energy from the grid is unavailable. Heating and cooling of the facility is accomplished by a series of natural gas fired and electric HVAC systems.

Compliance Evaluation

Indoor Growing

Cannabis plants naturally emit terpenes during the growth of the plants. Terpenes are Volatile Organic Compounds (VOCs), and are well known for their strong odor. AQD staff observed mild cannabis odors while in the parking lot of the facility. At this time not enough is known with regards to the emissions from plants during growing operations and whether the process may require a Permit to Install (PTI). There is potential in the future, once more emission data is obtained, that cannabis growing operations will be required to obtain a PTI. This was communicated to staff at Glorious Cannabis during the onsite inspection.

Processing

Harvested flowers are processed at the facility to remove and separate trichomes. The trichomes are separated from the flowers using an ice water solution. Cannabis flowers and ice water are added to a drum lined with a mesh filter liner. Staff then mechanically agitate the solution, by hand, using paddles. The combination of ice water and mechanical agitation knocks the trichomes off the flowers. The trichomes remain in the water solution and the flower material is filtered out. The trichome containing water is then further filtered to separate the trichomes from the water. The removed trichomes are then freeze dried to create bubble hash. The facility is currently in the process of installing electric rotary drums to be used for the trichome removal. The drums consist of two chambers. The inner chamber will be filled with the ice water and cannabis. The outer chamber appeared sealed and was reported to contain glycol to further cool the flower water solution. The onsite process for processing flowers did not include the use of solvents for oil extraction. Current onsite processes for flower processing do not appear to need a PTI.

Emergency Generators

Glorious Cannabis has two emergency generators onsite. One generator is rated at 500 kW, and the other is rated at 1 MW. Both generators are used during periods in which energy is not available from the grid. AQD requested records detailing the maximum heat input rating and

horsepower rating for each of the engines. Staff at Glorious Cannabis provided Technical Data Sheets for each of the engines associated with the generators.

The 500 kW generator is powered by a natural gas fired G3412C Caterpillar engine. The engine is rated at 755 bhp and is equipped with air fuel ratio control. The technical data sheet lists the lower heat value input as 90,807 Btu/min, or 5,448,420 Btu/hr. Rule 336.1285(2)(g) states that internal combustion engines that have less than 10,000,000 Btu/hr maximum heat input are exempt from needing to obtain a PTI. The exemption is not applicable if prohibited by R 336.1278 and unless the requirements of R 336.1278a have been met. Based on the engine specifications provided, the G3412C Caterpillar engine appears to meet the exemption requirements of R 285(2)(g).

The 1 MW generator is powered by a natural gas fired G3516 LE Caterpillar engine. The engine is rated at 1462 bhp. The technical data sheet lists the lower heat value input as 189,620 Btu/min, or 11,377,200 Btu/hr. Based on the engine specifications provided, the G3516 LE Caterpillar engine does not appear to meet the exemption requirements of R 285(2)(g). Installation of an emission unit without first obtaining a Permit to Install is a violation of R 336.1201. The need to obtain a PTI for the engine has been communicated to the facility. Additionally, AQD staff provided resources and links on obtaining a PTI. A Violation Notice (VN) will be sent to the facility for violation of R.201.

As auxiliary power units (APUs), both units are potentially subject to federal regulations. Federal air quality regulations the units are potentially subject to include, 40 CFR Part 60, Subpart JJJ, and 40 CFR Part 60, Subpart ZZZZ. Facility personnel were made aware of the potential subjectivity to federal air regulations during the onsite inspection. Further information about 40 CFR Part 60, Subpart JJJ, and 40 CFR Part 60, Subpart ZZZZ were provided to aid the facility with making subjectivity determinations.

Summary

On February 24, 2023, AQD staff conducted a self-initiated onsite inspection at Glorious Cannabis Company located at 2497 E Huron Rd Au Gres, MI 48703. The facility specializes in the cultivation and processing of adult-use and medical marijuana. At the time of inspection, the facility was found to be in non-compliance. A 1 MW generator powered by a G3516 LE Caterpillar engine was installed at the facility without obtaining a Permit to Install. This is a violation of R.201. A Violation Notice will be issued to the facility.


NAME _____

DATE 3/7/2023

SUPERVISOR 
