

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

U73220157062320

<b>FACILITY:</b> High Life Farms		<b>SRN / ID:</b> U732201570
<b>LOCATION:</b> 624 Brady Street		<b>DISTRICT:</b> Bay City
<b>CITY:</b> Chesaning		<b>COUNTY:</b> SAGINAW
<b>CONTACT:</b> Rick Merchant , Maintenance Manager		<b>ACTIVITY DATE:</b> 03/03/2022
<b>STAFF:</b> Gina McCann	<b>COMPLIANCE STATUS:</b> Unknown	<b>SOURCE CLASS:</b>
<b>SUBJECT:</b> Evaluation of process equipment and R201 applicability determination.		
<b>RESOLVED COMPLAINTS:</b>		

On March 3, 2022 I performed a self-initiated inspection of High Life Farms at 624 Brady Street Chesaning MI 48616. The facility has repurposed an existing, industrial building to use in the manufacturing of marihuana for recreational and medical consumption. The status of compliance for this facility is currently unknown and being evaluated. Emissions calculations and a R78(a) demonstration response is required by April 22, 2022.

In October of 2021 the Environmental Support Division received an email from Lawrence Township regarding the use of odor mitigation at the farm. The township was inquiring if the odor suppression system was required to be permitted. Upon further internal conversations with subject matter experts a self-initiated inspection was scheduled to determine if additional equipment was installed that would require permitting.

Mr. Rick Merchant, Maintenance Manager, met with me and provided a tour of the farm. During the tour we were met by Mr. Connor Schilling, Chemist, and Mr. Bruce Bawkon, consultant with ASTI-Environmental.

The farm employs (250) two hundred and fifty employees and delivered its first product April 20, 2018. There is a total of (8) eight flower rooms and a greenhouse with (3) three bays. Each flower room can hold 800-900 plants and each bay on the greenhouse will hold approximately 2000 plants.

There is a total of (5) five natural gas fired boilers. The boilers are used to deliver heat through a closed loop system. The plants sit on top of this warm water loop to help deliver the desired warmth for propagation. The interior flower rooms rarely, if ever, use the boiler system. The boilers for these interior rooms are sized as follows: (1) one at 500,000 Btu/hr and (2) two at 399,000 Btu/hr. They have less influence from the outside environment and the grow lights provide the necessary heat needed. The greenhouse, however, has a greater potential to be influenced by the outside weather. Therefore, this boiler system is regularly used to moderate the temperature the plants need. There are two boilers for the greenhouse, and they are each sized at 999,000 Btu/hr.

The farm also installed (2) two back-up generators to supply electricity in case of a power outage. Each generator uses diesel and has an 18.1 L displacement.

Additionally, two oil extraction processes were added in late 2021 and early 2022. One process uses a 70% butane to 30% propane ratio and the other uses heptane and ethanol for extraction and clarification of the desired oil. The solvents are washed over the plant matter to break it down, before ultimately removing the desirables from the plant material. Winterisation uses

ethanol and sub-zero temperatures to separate the unwanted fats and waxes from the oil. Ethanol can be recovered and reused almost endlessly, whereas the heptane is spent after being used twice. Both processes provide an oil that is then placed in one of (4) four ovens to drive off the residual solvents. The oil is then used in various edible products that the facility manufacturers.

The farm also has an ice water hash system commonly called or bubble hash. No solvents are used in this process. This process produces a smokable material.

Lastly, the farm installed a Cannabusters, odor reducing, process. Upon arriving at the facility, a light marijuana odor was observed. During the tour, Mr. Merchant showed the odor system which uses iodine for oxidizing odors. The amount of solution used is estimated to be (150) one hundred and fifty gallons per calendar year. The actual annual quantity is unknown at this point since the system was recently installed.

A R336.1201 applicability determination for each of the listed processes has not yet been determined. In my opinion, the facility needs to demonstrate R336.1278 exclusion applicability if they are planning to use any of the permit exemptions. It appears that each of these processes were installed as one activity and therefore the aggregated emissions should be compared to significance levels or reasoning provided to why these are not part of the same activity.

On March 24, 2022 AQD sent a R336.1278(a) demonstration letter requesting High Life Farms demonstrate the emergency generators, boilers, oil extraction processes, and the odor oxidation system are either exempt from Rule 201 or submit a PTI application for the subject processes at the facility. As part of the description of the exempt process or process equipment and/or to determine compliance with Rule 278, the AQD also requested that High Life Farms provide potential to emit (PTE) calculations for carbon monoxide, nitrogen oxides, sulfur dioxide, and volatile organic compounds. The demonstration response is requested by April 22, 2022.

Until the request is received a compliance determination cannot be made.

NAME 

DATE 04/04/2022

SUPERVISOR 