

December 13, 2023

Via email:

Centreville Town Council

Re: Green Thumb Industries, Inc. Centreville Facility

Dear members of the Centreville Town Council,

As you recall, on September 21, 2023 the Town Council held a hearing on Ordinance 05-2005. At that hearing, and in letter from its counsel to the Town, Green Thumb Industries, Inc. (“GTI”) expressed its concerns with the Ordinance, specifically that if passed it would prohibit GTI from expanding its existing outdoor growing facilities on Lot K in the Centreville Business Park. Notwithstanding its opposition to the Ordinance, and that its Centreville operations comply with all applicable industry and government standards, GTI also told the Town Council that it wanted to work in good faith with the Town and the community to determine the source of, and develop a strategy to reduce or eliminate, odors that emanate from the GTI’s cannabis cultivation and processing facility in Centreville (“Facility”).

GTI engaged Byers Scientific, a leading expert in the field of emissions and odor mitigation, (“Byers”) to undertake an evaluation of the Facility. On November 29, 2023, Josh Rembusch, Vice President of Byers, conducted an in-person site assessment. The assessment consisted of an inspection of the Facility’s HVAC system, aided by the use of an anemometer to determine the face velocity of various facility exhaust sources. Both internal recirculation and exhaust to outside ambient air were tested, air samples collected, and GC/MS [Gas Chromatography / Mass Spectrometry] analysis were performed by Byers. The assessment also included the outdoor growing area on Lot K.

Mr. Rembusch identified sources of odorous emissions listed below and recommended reduction/elimination measures for each. For the purposes of general facility air assessments, potential cannabis odors include both terpenes (various aromatic compounds) and sulfurs (skunky odors):

- **Extraction Exhaust (inner booth space):**
The Facility’s extraction inner booth space exhaust is 18” in diameter and exhausts air at a rate of 1800 ft/min. This room is classified Class One Division One (C1D1) due to the potential flammability of the process. Installing inline molecular air filtration is not an option due to the fire safety requirements. With this life safety requirement in mind, the solution for odor control entails the use of Atomization (microscopic droplets) of a solution of water and odor neutralizer on the exterior of the building right at the exhaust point. This control method seeks to neutralize, not mask, the aromas and odors associated with cannabis-related emissions. Both the volume of air movement in this

area as well as the quantity of cannabis processed each day through this particular system gave Byers and GTI significant confidence that addressing this area, in particular, will have a material impact on our odor footprint in the area.

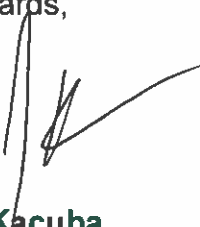
- Extraction Exhaust (outer booth space)
The Facility's extraction outer booth space exhaust is 18" in diameter and exhausts air at a volume of 1300 CFM. This source of potential odor can be addressed with a molecular air filtration system.
- CO2 Room Exhaust
The Facility's CO2 room exhaust is 12" and was estimated at 1,200 CFM. This source of potential odor can be appropriately addressed with a molecular air filtration system.
- Post-Processing Room
The Facility's Post-Processing Room has two (2) exhaust hoods. These hoods were not observed to be a significant potential emissions source at the time of the site visit. Nevertheless, they are being noted as a potential area for observance and further analysis for potential fugitive emissions. No filtration deemed necessary for these exhausts.
- Kitchen Exhaust Hood
The Facility's Kitchen hood exhausts emissions directly to the exterior of the building. This source of potential odor can be appropriately addressed with a molecular air filtration system. Precise CFM were not determined on this visit but will be calculated prior to final filter recommendation.
- ERV Exhaust
The Facility has a small exhaust incorporated into its ERV system with an estimated 500 CFM. This source of potential odor can be appropriately addressed with a molecular air filtration system.
- Cultivation/Harvest – Indoor
Based on Byers staff observations, the Facility's Cultivation Room design and air movement strategy appear to be adequate for minimizing potential odor in the main hallway. However, all harvest events are potential contributors to a Facility's odor profile due to the large plant disturbance event and GTI should observe this area during harvest for any potential spikes in odor detection. Byers recommends that GTI continue to monitor for odors during the one day per week harvest event and minimize the time doors are open to the grow rooms and keep the double doors to and from the main cultivation hallway closed. No controls recommended at this time.
- Drying Trailer Outdoor Facilities – Lot K
The output of this unit can be as much as 189,000 cfm of odorous air. For proper odor mitigation, this application requires heavy recirculation with molecular filtration (MF) and a final polishing step with a dedicated filtration for 10% exhaust. Based on studies of outdoor grows across the country, Byers feels that mitigating the dry trailer is the only required and efficacious need related to the outdoor garden.

As you could expect, both the capital and ongoing operation cost to implement these measures will be significant. Nonetheless GTI is prepared to undertake the Facility improvements described above and then continue to be proactive in its monitoring of the Facility with the assistance of experts such as Byers. GTI anticipates all measures could be in place before the summer of 2024.

With the understanding that GTI is committed to making the recommended odor control improvements, GTI respectfully requests that the Town Council act unfavorably on Ordinance 05-2023. As described above, Ordinance 05-2023 will have no effect on reducing odor emanating from the Facility. If and when GTI makes site plan application to expand its outdoor growing on Lot K, the application will include a thorough assessment of possible odor sources and mitigation measures for the expanded outdoor facilities which the Planning Commission may consider as part of its review to ensure the expansion will not result in an increase in odor.

Thank you for your consideration. We can make ourselves available to answer any questions you may have and would welcome the opportunity to provide additional information as needed.

Best Regards,



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