

PROTECTING AIR QUALITY WHEN GROWING AND PROCESSING HEMP

GUIDANCE

INTRODUCTION

Hemp processing and cultivation facilities may be subject to Michigan Department of Environment, Great Lakes, and Energy (EGLE) air pollution control rules, including the requirement to obtain an air permit, depending on the type and size of the operation. This document is intended to provide guidance to growers and processors about which air quality regulations apply to the hemp industry and how to comply with them.

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COMMON TERMS

Permit to Install (PTI): State license to emit air contaminants into the ambient air.

Potential to Emit (PTE): The amount of pollutants that may be emitted from a source, assuming maximum capacity, running 24 hours per day, 365 days per year, without any control equipment.

Minor Sources: Small-quantity emitters of air pollutants. Some minor sources may be exempt from the requirement to obtain a PTI.

Major Sources: Large-quantity emitters of air pollutants. These sources are subject to the requirement to obtain a PTI, as well as EGLE's Renewable Operating Program.

Renewable Operating Program (ROP): National permitting requirement under Title V of the federal Clean Air Act Amendments of 1990. This program only applies to major sources.

WHAT AIR REGULATIONS MAY APPLY TO THE HEMP PRODUCTION AND PROCESSING INDUSTRY?

EGLE’s Air Quality Division (AQD) enforces the [Air Pollution Control Rules](#), which are a set of state-wide rules regulating emission of air contaminants into the atmosphere. The goal of the Air Pollution Control Rules is to prevent adverse public health or environmental impacts to the ambient air. One key requirement contained within these rules is the requirement for emission sources to obtain a permit.

All facilities having the potential to emit (PTE) air pollutants are required to evaluate whether a Permit to Install (PTI) is necessary. A PTI is a state license to emit air contaminants into ambient (outdoor) air. The cannabis industry is subject to the requirement to obtain a PTI, just like any other industry with potential air emissions. A PTI must be obtained prior to the operation of equipment or process that emits air pollutants.

The amount of potential emissions determines the type of permit and oversight a facility may need. The facilities can be classified as:

- **Minor Sources:** These are small-quantity emitters of air pollutants and may be exempt from the requirement to obtain a PTI. Minor sources are further classified as either true minor or opt-out sources.
 - **True Minor:** Sources with low potential emissions. Some true minor sources may be considered exempt from the requirement to obtain a permit.
 - **Opt-Out Sources:** These are potential large emitters of air pollution that restrict their PTE by adding controls or incorporating material or operational limitations into their PTI. By doing so, these sources are not subject to the AQD’s ROP program.
- **Major Sources:** These are large emitters of air pollutants, where potential emissions exceed specific thresholds. The major source emission thresholds for specific pollutants thresholds can be found in the Air Pollution Control Rules, or in the [PTE Workbook](#). Major sources are required to obtain a permit to install and are also subject to AQD’s [Renewable Operating Permit program](#).

Odors from hemp facilities may also be regulated by the AQD. Rule 901 of the [Air Pollution Control Rules](#) prohibits anyone from emitting air contaminants that cause “unreasonable interference with comfortable enjoyment of life and property.” This includes odors from hemp facilities that may pose a nuisance to surrounding communities. The AQD will only enforce Rule 901 regulations on hemp operations with an active PTI. Odor complaints against hemp growers or processors without a PTI should be directed to municipalities. Additional guidance for municipalities on developing local odor control plans is currently under development.

WHAT TYPES OF HEMP FACILITIES MAY NEED A PERMIT?

At this time, processors are the only type of cannabis facility that may need an air use permit. The use of solvents and cleaning materials in processing operations is a source of volatile organic compounds (VOCs). Emissions of VOCs in high enough quantities would require the facility to obtain a PTI prior to installation and operation. Some of the VOCs that are emitted from these processes may also be regulated as toxic air contaminants (TACs) and/or hazardous air pollutants (HAPs). In addition, operations with natural gas-fired boilers or emergency generators may be required to obtain a PTI to operate these pieces of equipment.

Growers are currently not subject to the requirement to obtain a PTI, since the potential emissions from these facilities are unknown or difficult to estimate. Cannabis plants naturally emit VOCs throughout their growth. However, there are not any reliable estimates of VOC emissions from hemp grow operations and therefore there is not a currently acceptable way to calculate PTE. A study is currently underway in Colorado to determine the quantity of VOC emissions

from cannabis plants throughout their growth cycle. As more information on emissions from grow operations becomes available, hemp cultivation operations may become subject to air permitting requirements.

HOW DO I CALCULATE MY PTE?

In order to determine if your facility needs a PTI, you must first calculate your PTE. PTE is the maximum amount of air contaminants that your facility could emit, assuming the facility is operating at 100% of its design capacity, the highest emitting materials are used, the process is operated 24 hours/day, 365 days/year, and that no air pollution control equipment is used. More information on how to calculate PTE can be found in the [PTE Workbook](#).

Once you have calculated your facility's PTE, you should reach out to your [AQD District Office](#) to determine whether your source is subject to the requirement to obtain a PTI. Due to the emerging nature of the hemp industry, determinations of applicability of air quality regulations will be made on a case-by-case basis for hemp operations. This is subject to change as the AQD gains more information on emissions from these sources.

HOW DO I GET AN AIR USE PERMIT?

If a PTI is required for your facility, you will need to fill out a [PTI application](#) and submit it to AQD. The application and associated materials can be found online at [Michigan.gov/Air](#), under "Permits." There is no fee to apply for a PTI, but the application can take days to complete. Once the application is submitted, it can take several months before the final permit is issued by the AQD. Be sure to allow plenty of time prior to beginning construction of your facility to obtain an approved PTI.

WHAT DOES A PTI REQUIRE?

PTIs limit the PTE of the facility. This may be done through production limits, material substitutions, or add-on pollution control devices. The specific requirements may vary based on the size and nature of the processing operation. Examples of permit conditions that may be included in a cannabis processing operation's permits are limiting the number of hours that a processing operation can run, requiring controls on emissions from processing equipment, or putting restrictions on the types of materials that can be used in the processing operation.

I HAVE A PTI. NOW WHAT?

Once you have an approved PTI, you have the AQD's authorization to begin construction and operation of your facility. Be sure to follow all conditions in your permit, including any recordkeeping or monitoring requirements. The AQD will periodically inspect facilities to check that all requirements are being met. If there are any future changes to operations resulting in a change to your facility's PTE, then you should reach out to the AQD. You may be required to modify your permit to accommodate these changes.

ADDITIONAL INFORMATION

- [Air Permitting – Potential to Emit](#)
- [Air Permits to Install](#)

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