

# Protecting Air Quality When Growing and Processing Marijuana

## Guidance

### Introduction

Marijuana cultivation and processing facilities are subject to Michigan Department of Environment, Great Lakes, and Energy (EGLE) air pollution control rules. Depending on the type and size of the operation, these facilities may be required to obtain an air permit prior to beginning construction. This document is intended to provide guidance from the Air Quality Division (AQD) to growers and processors about which air quality regulations apply to the marijuana industry and how to comply with them.

### 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 the AQD'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 Might Apply to Marijuana Producers and Processors?

The AQD enforces the [Air Pollution Control Rules](#), which include regulations for air contaminants ranging from particulate matter to acid rain. The goal of the Air Pollution Control Rules is to prevent adverse public health or environmental impacts due to the emission of air pollutants to the ambient air.

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 marijuana 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.

Another rule that applies to the marijuana industry is Rule 901, which prohibits anyone from emitting air contaminants that cause “unreasonable interference with comfortable enjoyment of life and property.” This includes odors from marijuana facilities that may pose a nuisance to surrounding communities. The AQD will only enforce Rule 901 regulations on marijuana operations with an active PTI. Otherwise, nuisance odor complaints about marijuana facilities will be handled by local units of government. Odor complaints against individuals or households should always be directed to municipalities. Additional guidance for municipalities on developing local odor control plans is currently under development.

### What Types of Marijuana Facilities May Need a Permit?

At this time, processors are the only type of marijuana 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. Marijuana plants naturally emit VOCs throughout their growth. However, there are not any reliable estimates of VOC emissions from marijuana grow operations and therefore there is not a currently acceptable way to calculate PTE. Currently, a study is underway in Colorado to determine the quantity of VOC emissions from marijuana plants throughout their growth cycle. As more information on emissions from grow operations becomes available, marijuana cultivation operations may become subject to air permitting requirements.

Provisioning centers, safety compliance labs, and secure transporters are expected to have minimal to no air emissions. These type of marijuana operations are exempt from air quality regulations and are not required to obtain a PTI.

## 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. This is calculated based on the following assumptions (1) the facility is operating at 100% of its design capacity, (2) the highest emitting materials are used, (3) the process is operated 24 hours/day, 365 days/year, and (4) 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 marijuana industry, determinations of applicability of air quality regulations will be made on a case-by-case basis for marijuana 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](http://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?

The PTI limits 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 marijuana 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 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. 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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